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ABSTRACT

An update of the Classification of Instructional Programs (CIP), a taxonomy for instructional programs at all levels (elementary to graduate, though primarily postsecondary) is presented. CIP, which was developed by the U.S. Department of Education's Center for Education Statistics (CES), is used in all CES surveys and is the accepted government standard for education information surveys. One part of the CIP is for program purpose; it distinguishes whether the program culminates in a formal award and reflects the way colleges collect and report data on program enrollment and completion. The second part of the CIP is for program category; it distinguishes programs by type of college program or specialization. Uses of CIP are identified and the concepts of instructional programs and subject matter are discussed. Definitions of subject fields are included, along with a list of changes in this edition from the 1981 edition. To provide continuity with classifications previously in use, cross references are provided between CIP and the Higher Education General Information System Taxonomy. Categories of the classification that are recognized as occupationally specific programs are also appended. An index is included that lists all six-digit program entries. (SW)

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A Classification of Instructional Programs (CIP)

Gerald S. Malitz

Center for Education Statistics

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"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries,"–Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

Foreword

The Classification of Instructional Programs (CIP), developed by the U.S. Department of Education's Center for Education Statistics (CES) in 1979-80, was updated for the first time in 1985. CIP is a taxonomy for instructional programs at all levels. It is used in all CES surveys and is the accepted government standard for education information surveys.

In 1979-81, when CIP was developed and published, CES assured the education community that CIP would be updated periodically. CIP is intended to reflect the continuing changes for postsecondary education program offerings. Since first published, CIP has been used by CES in the Higher Education General Information Survey (HEGIS), and the Vocational Education Data System (VEDS); by other organizations, such as the Office for Civil Rights, Office of Vocational and Adult Education, and National Occupational Information Coordinating Committee; and by State agencies and national associations. CIP's use has been extensive enough so its completeness and relevance can be analyzed. For example, a review of HEGIS and VEDS data confirmed that most programs in CIP existed. "Write-ins" for programs not in CIP indicated new and emerging programs.

The CIP update will be used in CES' Integrated Postsecondary Education Data System (IPEDS). The Carl Perkins vocational education legislation specifies the use of CIP in IPEDS vocational education surveys.

The CIP update was accomplished with help from State, Federal, institutional, and association representatives. The revised CIP is the result of their contributions and the empirical examination of reported data.

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For More Information

Requests for more information about the classification should be directed to Gerald S. Malitz, Center for Education Statistics, 555 New Jersey Avenue N.W., Washington, D.C. 20208, telephone (202) 357-6364.

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Chapter 1

Uses of the Classification of Instructional Programs (CIP)

According to 1986 data, in the United States there are over 3,300 colleges and universities, over 9,000 noncollegiate schools offering occupational programs, and over 15,000 elementary and secondary school districts. Most of these schools and colleges have developed instructional programs that meet the needs of the institution and its students. They have identified and described those programs in ways that best serve needs, and evolved classification and coding schemes that reflect their own arrangements and meet management needs.

However, many times schools and colleges must communicate information about their programs with State or Federal agencies, professional or accrediting groups, and other institutions in a language that everyone understands. That means a set of data categories and definitions subscribed to by all parties to the information exchange (data collecting and reporting). This does not mean that institutions must modify their internal systems to satisfy the needs of external reporting. To the contrary, to do so would reduce the internal use of data, which in most institutions is the primary consideration. Rather an institution should be prepared to translate its data into a common structure for reporting data and communicating with other agencies and institutions. This classification should be used to structure recordkeeping systems for internal use if

1) it is appropriate for intra-institutional use, and

2) external (reporting) uses prevail over internal uses so efficiency is better served.

CIP is to assist in collecting, reporting, and interpreting data about instructional programs. It is to aid those who design data collection instruments; respond to questionnaires; and compile, verify, and analyze data. CIP provides a universe for designers of data-collection instruments from which program titles may be selected. For survey respondents and those who compile and verify data, CIP is a dictionary to clarify where a particular datum should be reported.

CIP provides the Federal government with a standard means of describing instructional programs in Federal data surveys. The Center for Education Statistics (CES) uses CIP for its Integrated Postsecondary Education Data System (IPEDS) and other surveys.

Apart from Federal purposes and obligations, CIP has value for States and institutions. State education agencies, central offices of college and university systems, and superintendents of large school districts have data reporting needs not unlike those of the Federal government. These administrative units require standardized data on instructional programs for such functions as budgeting, funding, planning, allocating classroom space, assigning personnel, and reviewing programs. State agency personnel need standardized data from each institution in their State, for example, to compare program offerings and avoid duplications. Central university system offices and school district offices also rely on standardized data to prepare system-wide and district-wide budgets.

CIP should also be useful to institutions. To keep up with latest developments, institutions belonging to a particular interest group often exchange data on a regular basis. Institutions undertaking self-studies often compare their data with equivalent data from similar institutions.

Among potential users of CIP are State and Federal agencies and other organizations that are not primary sources of data about instructional programs. Since they must first collect data from schools and colleges before they can either use the data or pass it on to third parties; such organizations may find it useful to structure their record-keeping systems in accordance with CIP.

Cautionary Notes About Use

The CIP describes the content of programs at three levels (two-digit, four-digit, and six-digit levels). Its design allows it to be used in collecting data at varying levels. However, it is the responsibility of the individual or agency requesting the data to specify the level. Many times, no single level will yield the desired data. CIP provides the building blocks; it does not provide the blueprint for all uses.

Users should not interpret similar classification of programs as connoting comparability. Programs at two institutions can be categorized and coded in the same way, and yet be different. This can happen for a variety of reasons. First CIP is a framework to which institutions translate their own data. Second, there are many nuances to a description of an instructional program. These involve methods of teaching, prior preparation of students, mix of resources used, etc. In short, comparability is a relative, not an absolute, concept. If used properly, CIP should help assure that programs in the same category are more like each other than they are like programs in other categories.

Concepts Basic to CIP

A. The Definition of Instructional Programs

For purposes of this publication, instructional programs are defined as one or more structured learning experiences designed to accomplish a predetermined objective or set of allied objectives, such as preparation of advanced study, qualification for an occupation or range of occupations, or solely to increase knowledge or understanding.

Two points should be noted. First, as used in this publication, instructional programs comprise structured learning experiences. Learning that occurs by happenstance or that accrues through experience, but in the absence of a designed intent are to be excluded. At the same time, "structured learning experience" should be interpreted broadly. Student learning contracts, organized field experiences, and other planned experiences can be accommodated within this definition. The important thing is that they are planned and structured; the methods by which they are carried out are not determining considerations. Included within the scope of this definition are the following:

- Programs leading to the award of a high school diploma, college degree, or certificate of some form (programs resulting in an award are generally designed to provide a well-rounded education or preparation for further study or entry into one or more occupations);
- programs leading to educational attainment generally begin with a particular age or grade level--for example, a fifth grade instructional program (grade-level programs generally prepare an individual for the next level of education);
- programs intended to keep employed individuals current in their fields (continuing professional education or occupational updating programs); and
- programs intended to equip individuals for leisure-time pursuits.

Second, instructional programs are planned and organized toward an end. They can be described in explicit or implied objectives; for example, preparation for advanced study, preparation for job entry, occupational or professional updating, or preparation for a licensing exam. Alternatively, instructional programs can be described by the forms of recognition given on completion of the programs; for example, high school diplomas, certificates, or degrees. In many cases, the basic objectives are implied by the nature of the award conferred upon program completion. There is more commonality of practice and understanding about awards than about program purposes more abstractly stated. The approach in using awards as the determing factor has been adopted in this publication.

B. Subject Matter

The concept of instructional programs is often confused with the concept of subject matter. This confusion requires that a distinction be made between these concepts. According to CES, subject matter is defined as:

> A body of facts, understandings, processes, skills, values, and appreciations related to a specific aspect of human activity and experience. Subject matter includes the accumulated knowledge, skills, appreciations, and attitudes comprising the substance of any subject-matter area. *

Instructional programs, therefore, are distinguished by the objective or objectives they are to accomplish. Subject matter areas are distinguished by the substantive content of the knowledge, skill, appreciations, or attitudes they embody. While these concepts are related in that all instructional programs have a subject-matter base, they are not synonymous (see figure 1.)

Figure 1. Relationship Between Instructional Programs and Subject Matter Areas

```
                            Instructional Programs
                    (Distinguished by purposes/objectives)

                                   A            B            C
                                  /|\          /|\          /|\
                                   |            |            |
                       I---------->|            |            |
Subject Matter                     |            |            |
Areas                              |            |            |
                     II----------->|   -------->|            |
(Distinguished by                  |            |            |
 knowledge,          III---------->|            |            |
       skills,                                  |            |
       appreciation                             |            |
       or attitudes) IV------------------------>|            |
                                                             |
                       V------------------------------------>|
```

The relationships between Subject Matter Areas I, II, III, and Instructional Program A illustrate instructional programs generally derive from many subject matter areas. For example, an instructional program that prepares students for advanced study in physics may draw from mathematics, chemistry, and

---

* Putnam, John F., and Chismore, W. Dale. Standard Terminology for Curriculum and Instruction in Local and State School Systems. State Education Records and Reports Series, Handbook VI. U.S. Department of Health, Education, and Welfare, Office of Education, OE-23052. Washington, D.C.: U.S. Government Printing Office, 1970.

physics. The relationship between Subject Matter Area II and Instructional Programs A and B illustrate that multiple instructional programs often draw from a common subject matter area. Programs designed for such different purposes as preparing students for advanced study in physics and preparing students as entry-level machinists both draw on mathematics, though at different levels of complexity. Finally, the relationship between Subject Matter Area V and Instructional Program C shows that many instructional programs have as their purpose the transferral of knowledge or skills from one subject matter area. Examples are programs to help students with a communication skill such as reading or programs to acquaint an individual with recent advances in chemistry.

The concept of an instructional program generally applies to collecting data about degrees granted and student majors. The concept of subject matter generally applies to collecting data about levels of activity--full-time equivalent (FTE) faculty assigned or student credit/ contact hours generated--for instruction in a particular discipline. CIP is used to describe instructional programs. If any other use of CIP is planned users should clearly state how the classification is being used in that given application.

c. Relationship to Labor Market Supply and Demand

A major use of instructional program data, particularly at the State and National level, is in the development of information for labor market supply and demand comparisons. Instructional program (supply) categories are aligned as closely as possible with occupational (demand) categories. (See figure 2.)

Figure 2. Relationship Between Instructional Programs and Occupations

```
                                      Occupations

                                A          B           C
                            -----------------------------
                              /|\         /|\         /|\
                        I ---->|           |           |
                               |           |           |
Instructional          II ---->----------->|           |
Programs                                   |           |
                      III ---------------->            |
                                                       |
                       IV ---------------------------->|
```

This illustration indicates

1) Occupations can draw entrants from different instructional programs--for example sales personnel can come from business, engineering, liberal arts;

2) An instructional program can provide entrants to many occupations; liberal arts is an example; and

3) Some programs' relation to occupations are singular and direct. (The categories of Mechanics and Repairers, and Precision Production have been developed on this basis, for example.)

Criteria for Designing the Classification

Six criteria were used to design CIP:

1. Distinctions among programs are made on the basis of program objectives. For example, civil engineering technology is distinguished from civil engineering because the explicit purpose of the first program is training individuals to assist civil engineers.

2. The classification applies to all instructional programs regardless of the organization providing the instruction.

3. The classification applies to all educational levels--elementary, secondary, and postsecondary. This means that a program offered mostly by secondary schools, such as industrial arts, is included.

4. To provide continuity, ties to existing classification schemes are maintained as long as they do not violate other criteria.

5. The classification reflects the historical traditions of instructional program areas. Thus the category of home economics is detailed while law is not.

6. The structure reflects an institutional or organizational perspective because institutions are the data providers.

Describing the Classification

CIP comprises two parts, one for program purpose and the other for program category. Additional detail for the program category is in chapter 2, and definitions for program categories as well as program purposes are in chapter 3.

Program Purpose

The category for program purposes distinguishes whether or not programs culminate in a formal award, such as a degree, diploma, or certificate. It reflects a distinction made by institutions in describing their programs as "degree" or "nondegree". It also reflects the way institutions collect and report data on program enrollment and completion.

A search of college catalogs reveals statements of program purposes and objectives such as to enhance the quality of life, to promote democratic ideals, to develop the whole person, and to prepare individuals for employment in particular occupations. While such statements may be descriptive of program goals, there is no consensus on how they fit in categories. It is necessary to distinguish program levels within the program purpose categories. For programs culminating in formal awards, subcategories are the particular award granted upon program completion, such as high school diploma or baccalaureate degree. Further distinctions within award programs, such as grade-level descriptors, are often used. Such descriptors perhaps more appropriately describe the progress of an individual compared to a program rather than the program itself. Nevertheless, often all individuals at a particular grade level take the same educational program-for example, the first year of medical school. In such cases, grade-level distinctions can be legitimately used to identify and classify instructional programs. For programs not resulting in a formal award, level distinctions often are not made. In instances where level distinctions are useful or necessary, programs can be categorized as "introductory", "intermediate", or "advanced". (See table 1 for a listing of program purpose subdivisions.)

The discussion of program purpose would not be complete without addressing the question of "purpose as identified by whom?" This question can be answered from at lease three perspectives--the learner, society, and the institution providing the program.

Program Purpose

Award Programs

- 1.0 Elementary/Secondary Programs
  - 1.1 Elementary School Program
  - 1.2 Junior High/Middle School Program
  - 1.3 High School Diploma Program

- 2.0 Postsecondary Certificates/Awards/Diplomas/Degrees
  - 2.1 Postsecondary Certificate, Awards or Diploma of less than one academic year
  - 2.2 Postsecondary Certificate, Awards or Diploma of at least one but less than two academic years
  - 2.3 Associate Degree
  - 2.4 Postsecondary Certificate, Award or Diploma of at least two but less than four academic years
  - 2.5 Baccalaureate Degree

- 3.0 First-Professional Certificates/Degrees
  - 3.1 First-Professional Degree
  - 3.2 Post-Professional Certificate (Post-Degree)

- 4.0 Graduate Certificates/Degrees
  - 4.1 Postbaccalaureate Certificate
  - 4.2 Master's Degree
  - 4.3 Post-Master's Certificate
  - 4.4 Doctoral Degree
  - 4.5 Post-Doctoral Certificate

Nonformal Award Programs

- 5.0 Nonformal Award Programs

Learners give many reasons for participating in an educational program. So it is difficult to classify program purposes in a standard way. Society asks what the societal benefits are of continued investment in education. The difficulty is that societal objectives are too broadly stated to use in classifying program purposes. For this classification, the third perspective--that of the institutional providing the instructional program--will be used. Most data about instructional programs is collected from institutions, not students. So we adopt the institution's perspective if data are to be interpreted with consistency. Program purpose is interpreted as the objective intended by the institution offering the program.

Program Category

The second part of the classification distinguishes programs by programs area.

Program Category

Agriculture
- 01. Agribusiness and Agricultural
- 02. Agricultural Sciences
- 03. Renewable Natural Resources

Architecture and Environmental Design
- 04. Architecture and Environmental Design

Area and Ethnic Studies
- 05. Area and Ethnic Studies

Business
- 06. Business and Management
- 07. Business (Administrative Support)
- 08. Marketing and Distribution

Communications
- 09. Communications
- 10. Communications Technologies

Computer and Information Sciences
- 11. Computer and Information Sciences

Consumer, Personal and Miscellaneous Services
- 12. Consumer, Personal and Miscellaneous Services

Education
- 13. Education

Engineering
- 14. Engineering
- 15. Engineering and Engineering Related Technologies

Foreign Languages
- 16. Foreign Languages

Health
- 17. Allied Health
- 18. Health Sciences

Home Economics
- 19. Home Economics
- 20. Vocational Home Economics

Industrial Arts
- 21. Industrial Arts

Law
- 22. Law

Letters
- 23. Letters

Liberal/General Studies
- 24. Liberal/General Studies

Library and Archival Sciences
- 25. Library and Archival Sciences

Life Sciences
- 26. Life Sciences

Mathematics
- 27. Mathematics

Military Sciences
- 28. Military Sciences
- 29. Military Technologies

Multi/Interdisciplinary Studies
- 30. Multi/Interdisciplinary Studies

Parks and Recreation
- 31. Parks and Recreation

Personal and Social Development
- 32. Basic Skills
- 33. Citizenship/Civic Activities
- 34. Health-Related Activities
- 35. Interpersonal Skills
- 36. Leisure and Recreational Activities
- 37. Personal Awareness

Philosphy, Religion, and Theology
- 38. Philosophy and Religion
- 39. Theology

Physical Sciences
- 40. Physical Sciences
- 41. Science Technologies

Program Category (continued)

Psychology
  42. Psychology

Protective Services and Public Affairs
  43. Protective Services
  44. Public Affairs

Social Sciences
  45. Social Sciences

Trade and Industrial
  46. Construction Trades
  47. Mechanics and Repairers
  48. Precision Production
  49. Transportation and Material Moving

Visual and Performing Arts
  50. Visual and Performing Arts

Coding Programs

The program category has three levels. The definitions of all two-digit elements begin with the words "a summary of groups of instructional programs", while the definitions of all four-digit elements begin with "a group of instructional programs". At the six-digit level, all definitions begin with the words "an instructional program". Thus, by definition, an instructional program can only be coded at the six-digit level. This is why many four-digit programs have only one six-digit subdivision: it was necessary to add the six-digit entry for uniformity so that an instructional program under the four-digit group of programs would have a six-digit code by which to be classified.

There are programs cross-referenced from one, two-digit grouping to another. This is done where programs historically have been classified in more than one place. The cross-reference helps in locating these programs.

One more note should be made about program category. There was no attempt to include within this framework programs that combine education and work. These programs, called experiential education, are defined as "a set of planned educational experiences designed to enable learners to acquire attitudes, skills, and knowledge for work and other life roles by participating in work settings". It includes four major types of programs: cooperative vocational education, work experience education, career exploration, and work study programs. If there is demand for information concerning these types of programs, steps can be taken in the future to incorporate them into CIP. However, they do not fall within the criteria established for designing this classification.

Classifying Selected Programs

Some programs are difficult to match with this classification. The following guidelines deal with classifying these programs as well as unusual programs for which no appropriate categories are in the classification. The guidelines are by topic:

1. High School Programs Leading to a Diploma
   General academic or college preparatory programs should be classified
      - o Award, High School Diploma (purpose)
      - o Liberal/General Studies (program category)

   Occupational/vocational programs resulting in a high school diploma are classified
      - o Award, High School Diploma (purpose)
      - o Appropriate Program Category

2. Baccalaureate Transfer Program Offered by a Community College
   If the program is a general-purpose program, it should be classified
   - Award, Associate's, assuming a two-year program (purpose)
   - Liberal/General Studies (program category)

   If the program is designed to fulfill the two year requirements for a degree in a particular field (e.g., education or business), it should be classified
   - Award, Associate's (purpose)
   - Appropriate Program Category

3. General Educational Development (GED) Programs
   Classified the same as high school diplomas, that is
   - Award, High School Diploma (purpose)
   - Liberal/General Studies (program category)

4. Adult Basic Education
   These programs should be classified
   - Nonformal Award (purpose)
   - Basic Skills (program category)

5. Continuing Professional Education
   Most such programs are designed to update professionals practicing in their chosen field and might not be credit courses that can be applied toward a degree. As a result, programs commonly labeled "continuing professional education programs" should be classified
   - Nonformal Award (purpose)
   - Appropriate Program Category

   If a program labeled a "continuing professional education" course is part of a degree program, it should be classified
   - Award, Appropriate Level (purpose)
   - Appropriate Program Category

6. Occupational Updating Programs
   These should be classified the same as continuing professional education programs. If they are not intended to lead to a degree or certificate, then they should be classified
   - Nonformal Award (purpose)
   - Appropriate Program Category

   If the occupational updating program is designed to culminate in a degree or certificate, then it should be classified:
   - Award, Appropriate Level (purpose)
   - Appropriate Program Category

7. "General" Program Subcategories
   Many of the program categories in the structure have a "general" subcategory (for example, 01.0601, "Horticulture General"). This subcategory should be used only to connote program content covering two or more other six-digit subcategories in that category. It should not be used as a substitute for "other" subcategory.

8. Other Programs
   Report instructional programs for which there are no appropriate program elements as XX.9999, Other. The "other" rather than the "general" subcategory should be used when no appropriate six-digit category can be found.

Contents of the Classification

As stated previsously, chapter 2 contains a list of all subdivisions under program purpose and program category. Chapter 3 provides a definition for each term appearing in chapter 2. Appendix A lists all changes in this edition of CIP from the 1981 edition. To provide continuity with classifications previously in use, appendixes B crosswalks between the HEGIS Taxonomy and CIP. Appendix C lists those categories of the classification that are recognized as occupationally specific programs. An index is also included which lists all six-digit program entries for the reader's convenience. It identifies programs by the codes used in chapters 2 and 3 rather than by page number.

Chapter 2

CODED CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

Award Programs

- 1.0 Elementary/Secondary Programs
  - 1.1 Elementary School Program
  - 1.2 Junior High/Middle School Program
  - 1.3 High School Diploma Program
- 2.0 Postsecondary/Certificates/Awards/Diplomas/Degrees
  - 2.1 Postsecondary Certificate, Award or Diploma of less than one academic year
  - 2.2 Postsecondary Certificate, Award or Diploma of at least one but less than two academic years
  - 2.3 Associate's Degree
  - 2.4 Postsecondary Certificate, Award or Diploma of at least two but less than four academic years
  - 2.5 Baccalaureate Degree
- 3.0 First-Professional Certificates/Degrees
  - 3.1 First-Professional Degree
  - 3.2 Post-Professional Certificate (Post-Degree)
- 4.0 Graduate Certificates/Degrees
  - 4.1 Postbaccalaureate Certificate
  - 4.2 Master's Degree
  - 4.3 Post-Master's Certificate
  - 4.4 Doctoral Degree
  - 4.5 Post-Doctoral Certificate

Nonformal Award Programs

- 5.0 Nonformal Award Programs

Program Category

01. AGRIBUSINESS AND AGRICULTURAL PRODUCTION

01.01 Agricultural Business and Management

- 01.0101 Agricultural Business and Management, General
- 01.0102 Agricultural Business
- 01.0103 Agricultural Economics
- 01.0104 Farm and Ranch Management
- 01.0199 Agricultural Business and Management, Other

01.02 Agricultural Mechanics

- 01.0201 Agricultural Mechanics, General
- 01.0202 Agricultural Electrification, Power, and Controls
- 01.0203 Agricultural Mechanics, Construction, and Maintenance Skills
- 01.0204 Agricultural Power Machinery
- 01.0205 Agricultural Structures, Equipment, and Facilities
- 01.0206 Soil and Water Mechanical Practices
- 01.0299 Agricultural Mechanics, Other

01.03 Agricultural Production

- 01.0301 Agricultural Production, General
- 01.0302 Animal Production
- 01.0303 Aquaculture
- 01.0304 Crop Production
- 01.0305 Game Farm Management
- 01.0399 Agricultural Production, Other

01.04 Agricultural Products and Processing

- 01.0401 Agricultural Products and Processing, General
- 01.0402 Food Products
- 01.0499 Agricultural Products and Processing, Other

01.05 Agricultural Services and Supplies

- 01.0501 Agricultural Services and Supplies, General
- 01.0502 Agricultural Services
- 01.0503 Agricultural Supplies Marketing
- 01.0504 Pet Grooming
- 01.0505 Animal Training
- 01.0506 Horseshoeing
- 01.0507 Horse Handling and Care
- 01.0599 Agricultural Services and Supplies, Other

01.06 Horticulture

- 01.0601 Horticulture, General
- 01.0602 Arboriculture
- 01.0603 Ornamental Horticulture
- 01.0604 Greenhouse Operation and Management
- 01.0605 Landscaping
- 01.0606 Nursery Operation and Management
- 01.0607 Turf Management
- 01.0699 Horticulture, Other

01.07 International Agriculture

- 01.0701 International Agriculture

01.99 Agribusiness and Agricultural Production, Other

- 01.9999 Agribusiness and Agricultural Production, Other

02. AGRICULTURAL SCIENCES

02.01 Agricultural Sciences, General

- 02.0101 Agricultural Sciences, General

02.02 Animal Sciences

- 02.0201 Animal Sciences, General
- 02.0202 Animal Breeding and Genetics
- 02.0203 Animal Health
- 02.0204 Animal Nutrition
- 02.0206 Dairy
- 02.0208 Livestock
- 02.0209 Poultry
- 02.0299 Animal Sciences, Other

02.03 Food Sciences

- 02.0301 Food Sciences

02.04 Plant Sciences

- 02.0401 Plant Sciences, General
- 02.0402 Agronomy
- 02.0403 Horticulture Science
- 02.0408 Plant Protection (Pest Management)
- 02.0409 Range Management
- 02.0499 Plant Sciences, Other

02.05 Soil Sciences

- 02.0501 Soil Sciences

02.99 Agricultural Sciences, Other

- **02.9999 Agricultural Sciences, Other**

03. RENEWABLE NATURAL RESOURCES

03.01 Renewable Natural Resources, General

- 03.0101 Renewable Natural Resources, General

03.02 Conservation and Regulation

- 03.0201 Conservation and Regulation, General
- 03.0202 Conservation
- 03.0203 Resources Protection and Regulation
- 03.0299 Conservation and Regulation, Other

03.03 Fishing and Fisheries

- 03.0301 Fishing and Fisheries
- --------- Commercial Fishing Operations (see 49.0303)

03.04 Forestry Production and Processing

- 03.0401 Forestry Production and Processing, General
- 03.0402 Forest Production
- 03.0403 Forest Products Utilization
- 03.0404 Forest Products Processing Technology
- 03.0405 Logging
- 03.0499 Forestry Production and Processing, Other

03.05 Forestry and Related Sciences

- 03.0501 Forestry and Related Sciences, General
- 03.0502 Forestry Science
- 03.0504 Forest Engineering
- 03.0506 Forest Management
- 03.0509 Wood Science
- 03.0599 Forestry and Related Sciences, Other

03.06 Wildlife Management

- 03.0601 Wildlife Management

03.99 Renewable Natural Resources, Other

- 03.9999 Renewable Natural Resources, Other

04. ARCHITECTURE AND ENVIRONMENTAL DESIGN

04.01 Architecture and Environmental Design, General

- 04.0101 Architecture and Environmental Design, General

04.02 Architecture

- 04.0201 Architecture

04.03 City, Community, and Regional Planning

- 04.0301 City, Community, and Regional Planning

04.04 Environmental Design

- 04.0401 Environmental Design

- **04.05 Interior Design**
  - 04.0501 Interior Design
- **04.06 Landscape Architecture**
  - 04.0601 Landscape Architecture
- **04.07 Urban Design**
  - 04.0701 Urban Design
- **04.08 Land Use Management and Reclamation**
  - 04.0801 Land Use Management and Reclamation
- **04.99 Architecture and Environmental Design, Other**
  - 04.9999 Architecture and Environmental Design, Other

05. AREA AND ETHNIC STUDIES

- **05.01 Area Studies**
  - 05.0101 African Studies
  - 05.0102 American Studies
  - 05.0103 Asian Studies, General
  - 05.0104 East Asian Studies
  - 05.0105 Eastern European Studies
  - 05.0106 European Studies, General
  - 05.0107 Latin American Studies
  - 05.0108 Middle Eastern Studies
  - 05.0109 Pacific Area Studies
  - 05.0110 Russian and Slavic Studies
  - 05.0111 Scandanavian Studies
  - 05.0112 South Asian Studies
  - 05.0113 Southeast Asian Studies
  - 05.0114 Western European Studies
  - 05.0115 Canadian Studies
  - 05.0199 Area Studies, Other
- **05.02 Ethnic Studies**
  - 05.0201 Afro-American (Black) Studies
  - 05.0202 American Indian Studies
  - 05.0203 Hispanic-American Studies
  - 05.0204 Islamic Studies
  - 05.0205 Jewish Studies
  - 05.0299 Ethnic Studies, Other
- **05.99 Area and Ethnic Studies, Other**
  - 05.9999 Area and Ethnic Studies, Other

06. BUSINESS AND MANAGEMENT

- **06.01 Business and Management, General**
  - 06.0101 Business and Management, General
- **06.02 Accounting**
  - 06.0201 Accounting
- **06.03 Banking and Finance**
  - 06.0301 Banking and Finance
- **06.04 Business Administration and Management**
  - 06.0401 Business Administration and Management, General
  - 06.0402 Contract Management and Procurement/Purchasing
  - 06.0403 Product Management
  - 06.0499 Business Administration and Management, Other
- **06.05 Business Economics**
  - 06.0501 Business Economics
- **06.06 Human Resources Development**
  - 06.0601 Human Resources Development
- **06.07 Institutional Management**
  - 06.0701 Hotel/Motel Management
  - 06.0702 Recreational Enterprises Management
  - 06.0703 Resort Management
  - 06.0704 Restaurant Management
  - 06.0705 Transportation Management
  - 06.0799 Institutional Management, Other
- **06.08 Insurance and Risk Management**
  - 06.0801 Insurance and Risk Management
- **06.09 International Business Management**
  - 06.0901 International Business Management
- **06.10 Investments and Securities**
  - 06.1001 Investments and Securities
- **06.11 Labor/Industrial Relations**
  - 06.1101 Labor/Industrial Relations
- **06.12 Management Information Systems**
  - 06.1201 Management Information Systems
- **06.13 Management Science**
  - 06.1302 Operations Research (Quantitative Methods)
  - 06.1303 Management Science, General
  - 06.1399 Management Science, Other
- **06.14 Marketing Management and Research**
  - 06.1401 Marketing Management
  - 06.1402 Marketing Research
  - 06.1499 Marketing Management and Research, Other
- **06.15 Organizational Behavior**
  - 06.1501 Organizational Behavior
- **06.16 Personnel Management**
  - 06.1601 Personnel Management
- **06.17 Real Estate**
  - 06.1701 Real Estate
- **06.18 Small Business Management and Ownership**
  - 06.1801 Small Business Management and Ownership
- **06.19 Taxation**
  - 06.1901 Taxation
- **06.20 Trade and Industrial Supervision and Management**
  - 06.2001 Trade and Industrial Supervision and Management
- **06.21 Computer Installation Management**
  - 06.2101 Computer Installation Management
- **06.99 Business and Management, Other**
  - 06.9999 Business and Management, Other

07. BUSINESS (ADMINISTRATIVE SUPPORT)

- **07.01 Accounting, Bookkeeping, and Related Programs**
  - 07.0101 Accounting, Bookkeeping, and Related Programs, General
  - 07.0102 Accounting and Computing
  - 07.0103 Bookkeeping
  - 07.0104 Machine Billing, Bookkeeping, and Computing
  - 07.0199 Accounting, Bookkeeping, and Related Programs, Other
- **07.02 Banking and Related Financial Programs**
  - 07.0201 Banking and Related Financial Programs, General
  - 07.0203 Insurance Clerk
  - 07.0205 Teller
  - 07.0299 Banking and Related Financial Programs, Other
- **07.03 Business Data Processing and Related Programs**
  - 07.0301 Business Data Processing and Related Programs, General
  - 07.0302 Business Computer and Console Operation
  - 07.0303 Business Data Entry Equipment Operation
  - 07.0304 Business Data Peripheral Equipment Operation
  - 07.0305 Business Data Programming

07.0306 Business Systems Analysis
07.0399 Business Data Processing and Related Programs, Other

07.04 Office Supervision and Management
07.0401 Office Supervision and Management

07.05 Personnel and Training Programs
07.0501 Personnel and Training Programs, General
07.0502 Training Assisting
07.0503 Personnel Assisting
07.0599 Personnel and Training Programs, Other

07.06 Secretarial and Related Programs
07.0601 Secretarial and Related Programs, General
07.0602 Court Reporting
07.0603 Executive Secretarial
07.0604 Legal Secretarial
07.0605 Medical Secretarial
07.0606 Secretarial
07.0607 Stenographic
07.0699 Secretarial and Related Programs, Other

07.07 Typing, General Office, and Related Programs
07.0701 Typing, General Office, and Related Programs, General
07.0702 Clerk-Typist
07.0703 Correspondence Clerk
07.0704 Duplicating Machine Operation
07.0705 General Office Clerk
07.0707 Receptionist and Communication Systems Operation
07.0708 Shipping, Receiving, and Stock Clerk
07.0709 Traffic, Rate, and Transportation Clerk
07.0799 Typing, General Office, and Related Programs, Other

07.08 Word Processing
07.0801 Word Processing

07.99 Business (Administrative Support), Other
07.9999 Business (Administrative Support), Other

08. MARKETING AND DISTRIBUTION

08.01 Apparel and Accessories Marketing
08.0101 Apparel and Accessories Marketing, General
08.0102 Fashion Merchandising
08.0103 Fashion Modeling
08.0104 Footwear Marketing
08.0105 Jewelry Marketing
08.0199 Apparel and Accessories Marketing, Other

08.02 Business and Personal Services Marketing
08.0201 Business and Personal Services Marketing, General
--------- Advertising (see 09.0201)
08.0202 Display
08.0203 Marketing of Business or Personal Services
08.0299 Business and Personal Services Marketing, Other

08.03 Entrepreneurship
08.0301 Entrepreneurship
--------- Small Business Management and Ownership (see 06.1801)

08.04 Financial Services Marketing
08.0401 Financial Services Marketing

08.05 Floristry, Farm and Garden Supplies Marketing
08.0501 Floristry, Farm and Garden Supplies Marketing, General
08.0502 Farm and Garden Supplies Marketing
08.0503 Floristry
08.0599 Floristry, Farm and Garden Supplies Marketing, Other

08.06 Food Marketing
08.0601 Food Marketing, General
08.0602 Convenience Store Marketing
08.0603 Specialty Foods Marketing
08.0604 Supermarket Marketing
08.0605 Wholesale Food Marketing
08.0699 Food Marketing, Other

08.07 General Marketing
08.0701 Auctioneering
08.0702 Industrial Sales
08.0703 International Marketing
--------- Marketing Management (see 06.1401)
--------- Marketing Research (see 06.1402)
08.0704 Purchasing
08.0705 Retailing
08.0706 Sales
08.0707 Wholesaling
08.0708 Marketing, General
08.0799 General Marketing, Other

08.08 Home and Office Products Marketing
08.0801 Home and Office Products Marketing, General
08.0802 Appliance Marketing
08.0803 Building Materials Marketing
08.0805 Furniture Marketing
08.0806 Hardware Marketing
08.0807 Office Products and Equipment Marketing
08.0808 Specialty Home Furnishings Marketing
08.0899 Home and Office Products Marketing, Other

08.09 Hospitality and Recreation Marketing
08.0901 Hospitality and Recreation Marketing, General
--------- Hotel/Motel Management (see 06.0701)
08.0902 Marketing of Hotel/Motel Services
08.0903 Marketing of Recreational Services
--------- Recreational Enterprises Management (see 06.0702)
08.0904 Recreational Products Marketing
--------- Resort Management (see 06.0703)
--------- Restaurant Management (see 06.0704)
08.0905 Waiter/Waitress and Related Services
08.0999 Hospitality and Recreation Marketing, Other

08.10 Insurance Marketing
08.1001 Insurance Marketing

------- Real Estate (see 06.17)
--------- Real Estate (see 06.1701)

08.11 Transportation and Travel Marketing
08.1101 Transportation and Travel Marketing, General
08.1102 Transportation Marketing
08.1104 Tourism
--------- Transportation Management (see 06.0705)
08.1105 Travel Services Marketing
08.1106 Warehouse Services Marketing
08.1199 Transportation and Travel Marketing, Other

08.12 Vehicles and Petroleum Marketing
08.1201 Vehicles and Petroleum Marketing, General
08.1203 Automotive Vehicles and Accessories Marketing
08.1204 Petroleum Wholesaling
08.1205 Recreational Vehicles and Accessories Marketing
08.1206 Service Station Retailing
08.1207 Vehicle Rental and Leasing
08.1299 Vehicles and Petroleum Marketing, Other

08.99 Marketing and Distribution, Other
08.9999 Marketing and Distribution, Other

09. COMMUNICATIONS

- **09.01 Communications, General**
  - 09.0101 Communications, General
- **09.02 Advertising**
  - 09.0201 Advertising
- **09.03 Communications Research**
  - 09.0301 Communications Research
- **09.04 Journalism (Mass Communications)**
  - 09.0401 Journalism (Mass Communications)
- **09.05 Public Relations**
  - 09.0501 Public Relations
- **09.06 Radio/Television News Broadcasting**
  - 09.0601 Radio/Television News Broadcasting
- **09.07 Radio/Television, General**
  - 09.0701 Radio/Television, General
- **09.08 Telecommunications**
  - 09.0801 Telecommunications
- **09.99 Communications, Other**
  - 09.9999 Communications, Other

10. COMMUNICATIONS TECHNOLOGIES

- **10.01 Communications Technologies**
  - 10.0101 Educational Media Technology
  - 10.0102 Motion Picture Technology
  - 10.0103 Photographic Technology
  - 10.0104 Radio and Television Production and Broadcasting Technology
  - 10.0105 Sound Recording Technology
  - 10.0106 Video Technology
  - 10.0199 Communications Technologies, Other

11. COMPUTER AND INFORMATION SCIENCES

- **11.01 Computer and Information Sciences, General**
  - 11.0101 Computer and Information Sciences, General
- **11.02 Computer Programming**
  - 11.0201 Computer Programming
- **11.03 Data Processing**
  - 11.0301 Data Processing
- **11.04 Information Sciences and Systems**
  - 11.0401 Information Sciences and Systems
- **11.05 Systems Analysis**
  - 11.0501 Systems Analysis
- **11.06 Microcomputer Applications**
  - 11.0601 Microcomputer Applications
- **11.99 Computer and Information Sciences, Other**
  - 11.9999 Computer and Information Sciences, Other

12. CONSUMER, PERSONAL AND MISCELLANEOUS SERVICES

- **12.01 Drycleaning and Laundering Services**
  - 12.0101 Drycleaning and Laundering Services
- **12.02 Entertainment Services**
  - 12.0202 Bartending
  - 12.0203 Card Dealing
  - 12.0204 Umpiring
  - 12.0299 Entertainment Services, Other
- **12.03 Funeral Services**
  - 12.0301 Funeral Services
- **12.04 Personal Services**
  - 12.0401 Personal Services, General
  - 12.0402 Barbering/Hairstyling
  - 12.0403 Cosmetology
  - 12.0404 Electrolysis
  - 12.0405 Massage
  - 12.0406 Make-up Artistry
  - 12.0499 Personal Services, Other
- **12.99 Consumer, Personal, and Miscellaneous Services, Other**
  - 12.9999 Consumer, Personal and Miscellaneous Services, Other

13. EDUCATION

- **13.01 Education, General**
  - 13.0101 Education, General
- **13.02 Bilingual/Crosscultural Education**
  - 13.0201 Bilingual/Crosscultural Education
  - 13.0202 Bilingual Education Assisting
  - 13.0299 Bilingual/Crosscultural Education, Other
- **13.03 Curriculum and Instruction**
  - 13.0301 Curriculum and Instruction
- **13.04 Education Administration**
  - 13.0401 Education Administration, General
  - 13.0402 Administration of Special Education
  - 13.0403 Adult and Continuing Education Administration
  - 13.0404 Educational Supervision
  - 13.0405 Elementary and Secondary Education Administration
  - 13.0406 Higher Education Administration
  - 13.0407 Community College Education Administration
  - 13.0499 Education Administration, Other
- **13.05 Educational Media**
  - 13.0501 Educational Media
- **13.06 Evaluation and Research**
  - 13.0601 Evaluation and Research, General
  - 13.0603 Educational Statistics and Research
  - 13.0604 Educational Testing, Evaluation, and Measurement
  - 13.0605 Elementary and Secondary Research
  - 13.0606 Higher Education Research
  - 13.0699 Evaluation and Research, Other
- **13.07 International and Comparative Education**
  - 13.0701 International and Comparative Education
- **13.08 School Psychology**
  - 13.0801 School Psychology
- **13.09 Social Foundations**
  - 13.0901 Social Foundations
- **13.10 Special Education**
  - 13.1001 Special Education, General
  - 13.1002 Education of the Culturally Disadvantaged
  - 13.1003 Education of the Deaf and Hearing Impaired
  - 13.1004 Education of the Gifted and Talented
  - 13.1005 Education of the Emotionally Handicapped
  - 13.1006 Education of the Mentally Handicapped
  - 13.1007 Education of the Multiple Handicapped
  - 13.1008 Education of the Physically Handicapped
  - 13.1009 Education of the Visually Handicapped
  - 13.1010 Remedial Education
  - 13.1011 Specific Learning Disabilities
  - 13.1012 Speech Correction
  - 13.1099 Special Education, Other
- **13.11 Student Counseling and Personnel Services**
  - 13.1101 Student Counseling and Personnel Services
- **13.12 Teacher Education, General Programs**
  - 13.1201 Adult and Continuing Education
  - 13.1202 Elementary Education

- 13.1203 Junior High/Middle School Education
- 13.1204 Pre-Elementary Education
- 13.1205 Secondary Education
- 13.1299 Teacher Education, General Programs, Other

13.13 Teacher Education, Specific Subject Areas
- 13.1301 Agricultural Education
- 13.1302 Art Education
- 13.1303 Business Education
- 13.1304 Driver and Safety Education
- 13.1305 English Education
- 13.1306 Foreign Languages Education
- 13.1307 Health Education
- 13.1308 Home Economics Education
- 13.1309 Industrial Arts Education
- 13.1310 Marketing and Distributive Education
- 13.1311 Mathematics Education
- 13.1312 Music Education
- 13.1313 Nutritional Education
- 13.1314 Physical Education
- 13.1315 Reading Education
- 13.1316 Science Education
- 13.1317 Social Science Education
- 13.1318 Social Studies Education
- 13.1319 Technical Education
- 13.1320 Trade and Industrial Education
- 13.1321 Computer Education
- 13.1399 Teacher Education, Specific Subject Areas, Other

13.14 Teaching English as a Second Language/Foreign Language
- 13.1401 Teaching English as a Second Language/Foreign Language

13.15 Teacher Assisting
- 13.1501 Teacher Assisting

13.99 Education, Other
- 13.9999 Education, Other

14. ENGINEERING

14.01 Engineering, General
- 14.0101 Engineering, General

14.02 Aerospace, Aeronautical, and Astronautical Engineering
- 14.0201 Aerospace, Aeronautical, and Astronautical Engineering

14.03 Agricultural Engineering
- 14.0301 Agricultural Engineering

14.04 Architectural Engineering
- 14.0401 Architectural Engineering

14.05 Bioengineering and Biomedical Engineering
- 14.0501 Bioengineering and Biomedical Engineering

14.06 Ceramic Engineering
- 14.0601 Ceramic Engineering

14.07 Chemical Engineering
- 14.0701 Chemical Engineering

14.08 Civil Engineering
- 14.0801 Civil Engineering

14.09 Computer Engineering
- 14.0901 Computer Engineering

14.10 Electrical, Electronics, and Communications Engineering
- 14.1001 Electrical, Electronics, and Communications Engineering
- 14.1002 Microelectronic Engineering

14.11 Engineering Mechanics
- 14.1101 Engineering Mechanics

14.12 Engineering Physics
- 14.1201 Engineering Physics

14.13 Engineering Science
- 14.1301 Engineering Science

14.14 Environmental Health Engineering
- 14.1401 Environmental Health Engineering

14.15 Geological Engineering
- 14.1501 Geological Engineering

14.16 Geophysical Engineering
- 14.1601 Geophysical Engineering

14.17 Industrial Engineering
- 14.1701 Industrial Engineering

14.18 Materials Engineering
- 14.1801 Materials Engineering

14.19 Mechanical Engineering
- 14.1901 Mechanical Engineering

14.20 Metallurgical Engineering
- 14.2001 Metallurgical Engineering

14.21 Mining and Mineral Engineering
- 14.2101 Mining and Mineral Engineering

14.22 Naval Architecture and Marine Engineering
- 14.2201 Naval Architecture and Marine Engineering

14.23 Nuclear Engineering
- 14.2301 Nuclear Engineering

14.24 Ocean Engineering
- 14.2401 Ocean Engineering

14.25 Petroleum Engineering
- 14.2501 Petroleum Engineering

14.26 Surveying and Mapping Sciences
- 14.2601 Surveying and Mapping Sciences
- 14.2602 Cartography

14.27 Systems Engineering
- 14.2701 Systems Engineering

14.28 Textile Engineering
- 14.2801 Textile Engineering

14.99 Engineering, Other
- 14.9999 Engineering, Other

15. ENGINEERING AND ENGINEERING RELATED TECHNOLOGIES

15.01 Architectural Technologies
- 15.0101 Architectural Design and Construction Technology
- 15.0102 Architectural Interior Design Technology
- 15.0199 Architectural Technologies, Other

15.02 Civil Technologies
- 15.0201 Civil Technology
- 15.0202 Drafting and Design Technology
- 15.0203 Surveying and Mapping Technology
- 15.0204 Urban Planning Technology
- 15.0299 Civil Technologies, Other

15.03 Electrical and Electronic Technologies
- 15.0301 Computer Technology
- 15.0302 Electrical Technology
- 15.0303 Electronic Technology
- 15.0304 Laser Electro-Optic Technology
- 15.0399 Electrical and Electronic Technologies, Other

15.04 Electromechanical Instrumentation and Maintenance Technologies
- 15.0401 Biomedical Equipment Technology
- 15.0402 Computer Servicing Technology
- 15.0403 Electromechanical Technology

15.0404 Instrumentation Technology
15.0405 Robotics Technology
15.0499 Electromechanical Instrumentation and Maintenance Technologies. Other

15.05 Environmental Control Technologies
15.0501 Air Conditioning. Heating. and Refrigeration Technology
15.0502 Air Pollution Control Technology
15.0503 Energy Conservation and Use Technology
15.0504 Sanitation Technology
15.0505 Solar Heating and Cooling Technology
15.0506 Water and Wastewater Technology
15.0599 Environmental Control Technologies. Other

15.06 Industrial Production Technologies
15.0602 Food Processing Technology
15.0603 Industrial Technology
15.0606 Optical Technology
15.0607 Plastic Technology
15.0609 Textile Technology
15.0610 Welding Technology
15.0699 Industrial Production Technologies. Other

15.07 Quality Control and Safety Technologies
15.0701 Occupational Safety and Health Technology
15.0702 Quality Control Technology
15.0799 Quality Control and Safety Technologies. Other

15.08 Mechanical and Related Technologies
15.0801 Aeronautical Technology
15.0803 Automotive Technology
15.0804 Marine Propulsion Technology
15.0805 Mechanical Design Technology
15.0899 Mechanical and Related Technologies. Other

15.09 Mining and Petroleum Technologies
15.0901 Coal Mining Technology
15.0902 Mining (Excluding Coal) Technology
15.0903 Petroleum Technology
15.0999 **Mining and Petroleum Technologies, Other**

15.10 Construction Technology
15.1001 Construction Technology

15.99 Engineering and Engineering-Related Technologies, Other
15.9999 Engineering and Engineering-Related Technologies. Other

16. FOREIGN LANGUAGES

16.01 Foreign Languages, Multiple Emphasis
16.0101 Foreign Languages. Multiple Emphasis

16.02 African (Non-Semitic) Languages
16.0201 African (Non-Semitic) Languages

16.03 Asiatic Languages
16.0301 Chinese
16.0302 Japanese
16.0399 Asiatic Languages. Other

16.04 Balto-Slavic Languages
16.0402 Russian
16.0403 Slavic Languages (Other than Russian)
16.0499 Balto-Slavic Languages. Other

16.05 Germanic Languages
16.0501 German
16.0502 Scandinavian Languages
16.0599 Germanic Languages. Other

16.06 Greek
16.0601 Greek (Classical)

16.07 Indic Languages
16.0703 Indic Languages

16.09 Italic Languages
16.0901 French
16.0902 Italian
16.0903 Latin
16.0904 Portuguese
16.0905 Spanish
16.0999 Italic Languages. Other

16.10 Native American Languages
16.1001 Native American Languages

16.11 Semitic Languages
16.1101 Arabic
16.1102 Hebrew
16.1199 Semitic Languages. Other

16.99 Foreign Languages, Other
16.9999 Foreign Languages. Other

17. ALLIED HEALTH

17.01 Dental Services
17.0101 Dental Assisting
17.0102 Dental Hygiene
17.0103 Dental Laboratory Technology
17.0199 Dental Services. Other

17.02 Diagnostic and Treatment Services
17.0201 Cardiovascular Technology
17.0202 Dialysis Technology
17.0203 Electrocardiograph Technology
17.0204 Electroencephalograph Technology
17.0205 Emergency Medical Technology-Ambulance
17.0206 Emergency Medical Technology-Paramedic
17.0207 Medical Radiation Dosimetry
17.0208 Nuclear Medical Technology
17.0209 Radiologic (Medical) Technology
17.0210 Respiratory Therapy Technology
17.0211 Surgical Technology
17.0212 Diagnostic Medical Sonography
17.0299 Diagnostic and Treatment Services. Other

17.03 Medical Laboratory Technologies
17.0301 Blood Bank Technology
17.0302 Chemistry Technology
17.0303 Clinical Animal Technology
17.0304 Clinical Laboratory Aide
17.0305 Clinical Laboratory Assisting
17.0306 Cytotechnology
17.0307 Hematology Technology
17.0308 Histologic Technology
17.0309 Medical Laboratory Technology
17.0310 Medical Technology
17.0311 Microbiology Technology
17.0399 Medical Laboratory Technologies. Other

17.04 Mental Health/Human Services
17.0401 Alcohol/Drug Abuse Specialty
17.0402 Community Health Work
17.0404 Home Health Aide
--------- Medical Social Work (see 44.0702)
17.0405 Mental Health/Human Services Assisting
17.0406 Mental Health/Human Services Technology
17.0407 Rehabilitation Counseling
17.0408 Therapeutic Child Care Work
17.0409 Population and Family Planning
17.0410 Sign Language Interpreting
17.0499 Mental Health/Human Services. Other

17.05 Miscellaneous Allied Health Services
17.0502 Central Supply Technology
17.0503 Medical Assisting
1. 0504 Medical Illustrating

17.0505	Medical Office Management
17.0506	Medical Records Technology
17.0507	Pharmacy Assisting
17.0508	Physician Assisting
17.0510	Podiatric Assisting
17.0512	Veterinarian Assisting
17.0513	Health Unit Coordinating
17.0514	Chiropractic Assisting
17.0599	Miscellaneous Allied Health Services, Other

17.06 Nursing-Related Services

17.0601	Geriatric Aide
17.0602	Nursing Assisting
17.0605	Practical Nursing
17.0606	Health Unit Management
17.0699	Nursing-Related Services, Other

17.07 Ophthalmic Services

17.0701	Ophthalmic Dispensing
17.0705	Optometric Technology
17.0799	Ophthalmic Services, Other

17.08 Rehabilitation Services

17.0801	Art Therapy
17.0802	Corrective Therapy
17.0803	Dance Therapy
17.0804	Exercise Physiology
17.0806	Music Therapy
17.0807	Occupational Therapy
17.0808	Occupational Therapy Assisting
17.0809	Occupational Therapy Aide
17.0811	Orthotics/Prosthetics
17.0812	Orthopedic Assisting
17.0813	Physical Therapy
17.0814	Physical Therapy Aide
17.0815	Physical Therapy Assisting
17.0816	Recreational Therapy
17.0817	Recreational Therapy Assisting
17.0818	Respiratory Therapy
17.0819	Respiratory Therapy Assisting
17.0820	Speech/Hearing Therapy Aide
17.0822	Recreational Therapy Aide
17.0899	Rehabilitation Services, Other

17.99 Allied Health, Other

17.9999	Allied Health, Other

18. HEALTH SCIENCES

18.01 Audiology and Speech Pathology

18.0101	Audiology
18.0102	Speech Pathology
18.0103	Speech-Language Pathology/Audiology
18.0199	Audiology and Speech Pathology, Other

18.02 Basic Clinical Health Sciences

18.0201	Clinical Anatomy
18.0202	Clinical Biochemistry
18.0203	Clinical Microbiology
18.0204	Clinical Pathology
18.0205	Clinical Physiology
18.0206	Clinical Toxicology
18.0299	Basic Clinical Health Sciences, Other

18.03 Chiropractic

18.0301	Chiropractic

18.04 Dentistry

18.0401	Dentistry, General
18.0402	Dental Public Health
18.0403	Endodontics
18.0404	Oral/Maxial Facial Surgery
18.0405	Oral Pathology
18.0406	Orthodontics
18.0407	Pedodontics
18.0408	Periodontics
18.0409	Prosthodontics
18.0499	Dentistry, Other

18.07 Health Services Administration

18.0701	Health Services Administration
18.0702	Health Care Planning
18.0703	Medical Records Administration
18.0799	Health Services Administration, Other

18.09 Medical Laboratory

18.0901	Medical Laboratory

18.10 Medicine

18.1001	Medicine, General
18.1002	Allergies and Endomology
18.1003	Anesthesiology
18.1004	Colon and Rectal Surgery
18.1005	Dermatology
18.1006	Emergency Medicine
18.1007	Family Practice
18.1008	Geriatrics
18.1009	Immunology
18.1010	Internal Medicine
18.1011	Neurological Surgery
18.1012	Nuclear Medicine
18.1013	Obstetrics and Gynecology
18.1014	Ophthalmology
18.1015	Orthodontic Surgery
18.1016	Orthopedic
18.1017	Otorhinolaryngology/Otolaryngology
18.1018	Pathology
18.1019	Pediatrics
18.1020	Physical Medicine and Rehabilitation
18.1021	Plastic Surgery
18.1022	Preventive Medicine
18.1023	Psychiatry
18.1024	Neurology
18.1025	Radiology
18.1026	Surgery
18.1027	Thoracic Surgery
18.1028	Urology
18.1029	Hematology
18.1030	Sports Medicine
18.1099	Medicine, Other

18.11 Nursing

18.1101	Nursing, General
18.1102	Anesthetist
18.1103	Maternal/Child Health
18.1104	Medical Surgical
18.1105	Nursing Administration
18.1106	Psychiatric/Mental Health
18.1107	**Public Health (Nursing)**
18.1199	Nursing, Other

18.12 Optometry

18.1201	Optometry

18.13 Osteopathic Medicine

18.1301	Osteopathic Medicine

18.14 Pharmacy

18.1401	Pharmacy

18.15 Podiatry

18.1501	Podiatry

18.17 Pre-Dentistry

18.1701	Pre-Dentistry

18.18 Pre-Medicine

18.1801	Pre-Medicine

18.19 Pre-Pharmacy

18.1901	Pre-Pharmacy,

- **18.20 Pre-Veterinary**
  - 18.2001 Pre-Veterinary
- **18.22 Public Health**
  - 18.2201 Public Health Laboratory Science
  - 18.2202 Epidemiology
  - 18.2203 Public Health Education
  - 18.2204 Public Health Practice and Management
  - 18.2299 Public Health, Other
- **18.24 Veterinary Medicine**
  - 18.2401 Veterinary Medicine
- **18.99 Health Sciences, Other**
  - 18.9999 Health Sciences, Other

19. HOME ECONOMICS

- **19.01 Home Economics, General**
  - 19.0101 Home Economics, General
- **19.02 Business Home Economics**
  - 19.0201 Business Home Economics
- **19.03 Family and Community Services**
  - 19.0301 Family and Community Services
- **19.04 Family/Consumer Resource Management**
  - 19.0401 Family/Consumer Resource Management, General
  - 19.0402 Consumer Science
  - --------- Home Management (see 20.0109)
  - 19.0499 Family/Consumer Resource Management, Other
- **19.05 Food Sciences and Human Nutrition**
  - 19.0501 Food Sciences and Human Nutrition, General
  - 19.0502 Food/Food Sciences
  - 19.0503 Dietitics/Human Nutritional Services
  - 19.0599 Food Sciences and Human Nutrition, Other
- **19.06 Human Environment and Housing**
  - 19.0601 Human Environment and Housing, General
  - 19.0602 Household Equipment
  - 19.0603 Housing
  - --------- Interior Design (see 04.0501)
  - 19.0699 Human Environment and Housing, Other
- **19.07 Individual and Family Development**
  - 19.0701 Individual and Family Development, General
  - --------- Child Development, Care, and Guidance (see 20.0102)
  - 19.0703 Family Counseling
  - 19.0704 Family Relations
  - 19.0705 Gerontological Services
  - 19.0799 Individual and Family Development, Other
- **19.09 Textiles and Clothing**
  - 19.0901 Textiles and Clothing, General
  - 19.0902 Fashion Design
  - 19.0904 Textile Science
  - 19.0999 Textiles and Clothing, Other
- **19.99 Home Economics, Other**
  - 19.9999 Home Economics, Other

20. VOCATIONAL HOME ECONOMICS

- **20.01 Consumer and Homemaking Education**
  - 20.0101 Comprehensive Consumer and Homemaking Education
  - 20.0102 Child Development, Care, and Guidance
  - 20.0103 Clothing and Textiles
  - 20.0104 Consumer Education
  - 20.0105 Exploratory Homemaking
  - 20.0106 Family/Individual Health
  - 20.0107 Family Living and Parenthood
  - 20.0108 Food and Nutrition
  - 20.0109 Home Management
  - 20.0110 Housing, Home Furnishings, and Equipment
  - 20.0199 Consumer and Homemaking Education, Other
- **20.02 Child Care and Guidance Management and Services**
  - 20.0201 Child Care and Guidance Management and Services, General
  - 20.0202 Child Care Aide/Assisting
  - 20.0203 Child Care Management
  - 20.0204 Foster Care/Family Care
  - 20.0299 Child Care and Guidance Management and Services, Other
- **20.03 Clothing, Apparel, and Textiles Management, Production, and Services**
  - 20.0301 Clothing, Apparel, and Textiles Management, Production, and Services, General
  - 20.0302 Clothing Maintenance Aide
  - 20.0303 Commercial Garment and Apparel Construction
  - 20.0304 Custom Apparel/Garment Seamstress
  - 20.0305 Custom Tailoring and Alteration
  - 20.0306 Fashion/Fabric Coordination
  - 20.0308 Wedding/Specialty Consulting
  - 20.0399 Clothing, Apparel, and Textiles Management, Production, and Services, Other
- **20.04 Food Production, Management, and Services**
  - 20.0401 Food Production, Management, and Services General
  - 20.0402 Baking
  - 20.0403 Chef/Cook
  - 20.0404 Dietetic Aide/Assisting
  - 20.0405 Food Catering
  - 20.0406 Food Service
  - 20.0408 School Food Service
  - 20.0499 Food Production, Management, and Services, Other
- **20.05 Home Furnishings and Equipment Management, Production, and Services**
  - 20.0501 Home Furnishings and Equipment Management, Production, and Services, General
  - 20.0502 Custom Drapery and Window Treatment Design/Making
  - 20.0503 Custom Slipcovering and Upholstering
  - 20.0504 Floral Design
  - 20.0505 Home Decorating
  - 20.0506 Home Furnishings Aide
  - 20.0507 Home-Service Assisting
  - 20.0599 Home Furnishings and Equipment Management, Production, and Services, Other
- **20.06 Institutional, Home Management, and Supporting Services**
  - 20.0601 Institutional, Home Management, and Supporting Services, General
  - 20.0602 Companion to the Aged
  - 20.0603 Consumer Aide/Assisting
  - 20.0604 Custodial Services
  - 20.0605 Executive Housekeeping
  - 20.0606 Homemaker's Aide
  - 20.0699 Institutional, Home Management, and Supporting Services, Other
- **20.99 Vocational Home Economics, Other**
  - 20.9999 Vocational Home Economics, Other

21. INDUSTRIAL ARTS

- **21.01 Industrial Arts**
  - 21.0101 Industrial Arts, General
  - 21.0102 Construction
  - 21.0103 Drafting and Design

- 21.0104 Electricity/Electronics
- 21.0105 Energy, Power and Transportation
- 21.0106 Graphic Arts
- 21.0107 Manufacturing/Materials Processing
- 21.0199 Industrial Arts, Other

22. LAW

22.01 Law
- 22.0101 Law
- 22.0102 Pre-Law
- 22.0103 Legal Assisting
- 22.0199 Law, Other

23. LETTERS

23.01 English, General
- 23.0101 English, General

23.02 Classics
- 23.0201 Classics

23.03 Comparative Literature
- 23.0301 Comparative Literature

23.04 Composition
- 23.0401 Composition

23.05 Creative Writing
- 23.0501 Creative Writing

23.06 Linguistics (Includes Phonetics, Semantics, and Philology)
- 23.0601 Linguistics (Includes Phonetics, Semantics, and Philology)

23.07 Literature, American
- 23.0701 Literature, American

23.08 Literature, English
- 23.0801 Literature, English

23.10 Speech, Debate, and Forensics
- 23.1001 Speech, Debate, and Forensics

23.11 Technical and Business Writing
- 23.1101 Technical and Business Writing

23.12 English as a Second Language
- 23.1201 English as a Second Language

23.99 Letters, Other
- 23.9999 Letters, Other

24. LIBERAL/GENERAL STUDIES

24.01 Liberal/General Studies
- 24.0101 Liberal Arts and Sciences
- 24.0102 General Studies
- 24.0199 Liberal/General Studies, Other

25. LIBRARY AND ARCHIVAL SCIENCES

25.01 Library and Archival Sciences, General
- 25.0101 Library and Archival Sciences, General

25.02 Archival Science
- 25.0201 Archival Science

25.03 Library Assisting
- 25.0301 Library Assisting

25.04 Library Science
- 25.0401 Library Science

25.05 Museology
- 25.0501 Museology

25.99 Library and Archival Sciences, Other
- 25.9999 Library and Archival Sciences, Other

26. LIFE SCIENCES

26.01 Biology, General
- 26.0101 Biology, General

26.02 Biochemistry and Biophysics
- 26.0201 Biochemistry and Biophysics

26.03 Botany
- 26.0301 Botany, General
- 26.0302 Bacteriology
- 26.0304 Plant Genetics
- 26.0305 Plant Pathology
- 26.0307 Plant Physiology
- 26.0399 Botany, Other

26.04 Cell and Molecular Biology
- 26.0401 Cell Biology
- 26.0402 Molecular Biology
- 26.0499 Cell and Molecular Biology, Other

26.05 Microbiology
- 26.0501 Microbiology

26.06 Miscellaneous Specialized Areas, Life Sciences
- 26.0601 Anatomy
- 26.0602 Biometrics and Biostatistics
- 26.0603 Ecology
- 26.0604 Embryology
- 26.0605 Endocrinology
- 26.0606 Histology
- 26.0607 Marine Biology
- 26.0608 Neurosciences
- 26.0609 Nutritional Sciences
- 26.0610 Parasitology
- 26.0611 Radiobiology
- 26.0612 Toxicology
- 26.0699 Miscellaneous Specialized Areas, Life Sciences, Other

26.07 Zoology
- 26.0701 Zoology, General
- 26.0702 Entomology
- 26.0703 Genetics, Human and Animal
- 26.0704 Pathology, Human and Animal
- 26.0705 Pharmacology, Human and Animal
- 26.0706 Physiology, Human and Animal
- 26.0799 Zoology, Other

26.99 Life Sciences, Other
- 26.9999 Life Sciences, Other

27. MATHEMATICS

27.01 Mathematics, General
- 27.0101 Mathematics, General

27.02 Actuarial Sciences
- 27.0201 Actuarial Sciences

27.03 Applied Mathematics
- 27.0301 Applied Mathematics

27.04 Pure Mathematics
- 27.0401 Pure Mathematics

27.05 Statistics
- 27.0501 Statistics

27.99 Mathematics, Other
- 27.9999 Mathematics, Other

28. MILITARY SCIENCES

28.01 Aerospace Science (Air Force)
- 28.0101 Aerospace Science (Air Force)

28.02 Coast Guard Science
- 28.0201 Coast Guard Science

28.03 Military Science (Army)
- **28.0401 Military Science (Army)**

28.04 Naval Science (Navy, Marines)
- 24.0401 Naval Science (Navy, Marines)

28.05 Maritime Science (Merchant Marine)
- 28.0501 Maritime Science (Merchant Marine)

28.99 Military Sciences, Other
- 28.9999 Military Sciences, Other

29. MILITARY TECHNOLOGIES

29.01 Military Technologies
- 29.0101 Military Technologies

29.99 Military Technologies, Other
- 29.9999 Military Technologies, Other

30. MULTI/INTERDISCIPLINARY STUDIES

30.01 Biological and Physical Sciences
- 30.0101 Biological and Physical Sciences

30.02 Clinical Pastoral Care
- 30.0201 Clinical Pastoral Care

30.03 Engineering and Other Disciplines
- 30.0301 Engineering and Other Disciplines

30.04 Humanities and Social Sciences
- 30.0401 Humanities and Social Sciences

30.05 Peace Studies
- 30.0501 Peace Studies

30.06 Systems Science
- 30.0601 Systems Science

30.07 Women's Studies
- 30.0701 Women's Studies

30.08 Mathematics and Computer Science
- 30.0801 Mathematics and Computer Science

30.09 Imaging Science
- 30.0901 Imaging Science

30.99 Multi/Interdisciplinary Studies, Other
- 30.9999 Multi/Interdisciplinary Studies, Other

31. PARKS AND RECREATION

31.01 Parks and Recreation, General
- 31.0101 Parks and Recreation, General

31.02 Outdoor Recreation
- 31.0201 Outdoor Recreation

31.03 Parks and Recreation Management
- 31.0301 Parks and Recreation Management

31.04 Water Resources
- 31.0401 Water Resources

31.99 Parks and Recreation, Other
- 31.9999 Parks and Recreation, Other

32. BASIC SKILLS

32.01 Basic Skills
- 32.0101 Basic Skills, General
- 32.0102 Academic and Intellectual Skills
- 32.0103 Communication Skills
- 32.0104 Computational Skills
- 32.0105 Job Seeking/Changing Skills
- 32.0106 Motor Skills
- 32.0107 Career Exploration
- 32.0199 Basic Skills, Other

33. CITIZENSHIP/CIVIC ACTIVITIES

33.01 Citizenship/Civic Activities
- 33.0101 Citizenship/Civic Activities, General
- 33.0102 American Citizenship
- 33.0103 Civic Appreciation
- 33.0104 Civic Participation
- 33.0199 Citizenship/Civic Activities, Other

34. HEALTH-RELATED ACTIVITIES

34.01 Health-Related Activities
- 34.0101 Health-Related Activities, General
- 34.0102 Birth-Related Health Practices
- 34.0103 Health Enhancement Practices
- 34.0104 Health Treatment/Prevention Practices
- 34.0199 Health-Related Activities, Other

35. INTERPERSONAL SKILLS

35.01 Interpersonal Skills
- 35.0101 Interpersonal Skills, General
- 35.0102 Building Human Relationships
- 35.0103 Perception of Others
- 35.0104 Social Role Engineering
- 35.0199 Interpersonal Skills, Other

36. LEISURE AND RECREATIONAL ACTIVITIES

36.01 Leisure and Recreational Activities
- 36.0101 Leisure and Recreational Activities, General
- 36.0102 Crafts (Leisure and Recreational)
- 36.0103 Games
- 36.0104 Hobbies
- 36.0105 Housing/Home Maintenance
- 36.0106 Nature Appreciation
- 36.0107 Pet Care
- 36.0108 Sports/Physical Education
- 36.0109 Travel
- 36.0199 Leisure and Recreational Activities, Other

37. PERSONAL AWARENESS

37.01 Personal Awareness
- 37.0101 Personal Awareness, General
- 37.0102 Coping Skills
- 37.0103 Personal Decisionmaking
- 37.0104 Self-Perception
- 37.0105 Values, Attitudes, and Beliefs
- 37.0199 Personal Awareness, Other

38. PHILOSOPHY AND RELIGION

38.01 Philosophy
- 38.0101 Philosophy

38.02 Religion
- 38.0201 Religion

38.99 Philosophy and Religion, Other
- 38.9999 Philosophy and Religion, Other

39. THEOLOGY

39.01 Biblical Languages
- 39.0101 Biblical Languages

39.02 Bible Studies
- 39.0201 Bible Studies

39.03 Missionary Studies
- 39.0301 Missionary Studies

39.04 Religious Education
- 39.0401 Religious Education

39.05 Religious Music
- 39.0501 Religious Music

39.06 Theological Studies
- 39.0601 Theological Studies

39.99 Theology, Other
- 39.9999 Theology, Other

40. PHYSICAL SCIENCES

- **40.01 Physical Sciences, General**
  - 40.0101 Physical Sciences, General
- **40.02 Astronomy**
  - 40.0201 Astronomy
- **40.03 Astrophysics**
  - 40.0301 Astrophysics
- **40.04 Atmospheric Sciences and Meteorology**
  - 40.0401 Atmospheric Sciences and Meteorology
- **40.05 Chemistry**
  - 40.0501 Chemistry, General
  - 40.0502 Analytical Chemistry
  - 40.0503 Inorganic Chemistry
  - 40.0504 Organic Chemistry
  - 40.0505 Pharmaceutical Chemistry
  - 40.0506 Physical Chemistry
  - 40.0599 Chemistry, Other
- **40.06 Geological Sciences**
  - 40.0601 Geology
  - 40.0602 Geochemistry
  - 40.0603 Geophysics and Seismology
  - 40.0604 Paleontology
  - 40.0699 Geological Sciences, Other
- **40.07 Miscellaneous Physical Sciences**
  - 40.0701 Metallurgy
  - 40.0702 Oceanography
  - 40.0703 Earth Science
  - 40.0799 Miscellaneous Physical Sciences, Other
- **40.08 Physics**
  - 40.0801 Physics, General
  - 40.0802 Atomic/Molecular Physics
  - 40.0806 Nuclear Physics
  - 40.0807 Optics
  - 40.0808 Solid State Physics
  - 40.0899 Physics, Other
- **40.09 Planetary Science**
  - 40.0901 Planetary Science
- **40.99 Physical Sciences, Other**
  - 40.9999 Physical Sciences, Other

41. SCIENCE TECHNOLOGIES

- **41.01 Biological Technologies**
  - 41.0101 Biological Laboratory Technology
  - 41.0102 Oceanographic (Biological) Technology
  - 41.0199 Biological Technologies, Other
- **41.02 Nuclear Technologies**
  - 41.0201 Nuclear Materials Handling Technology
  - 41.0202 Nuclear Power Plant Operation Technology
  - 41.0203 Nuclear Power Plant Radiation Control Technology
  - 41.0204 Radiologic (Physical) Technology
  - 41.0299 Nuclear Technologies, Other
- **41.03 Physical Science Technologies**
  - 41.0301 Chemical Technology
  - 41.0302 Geological Technology
  - 41.0303 Metallurgical Technology
  - 41.0304 Meteorological Technology
  - 41.0305 Oceanographic (Physical) Technology
  - 41.0399 Physical Science Technologies, Other
- **41.99 Science Technologies, Other**
  - 41.9999 Science Technologies, Other

42. PSYCHOLOGY

- **42.01 Psychology, General**
  - 42.0101 Psychology, General
- **42.02 Clinical Psychology**
  - 42.0201 Clinical Psychology
- **42.03 Cognitive Psychology**
  - **42.0301 Cognitive Psychology**
- **42.04 Community Psychology**
  - 42.0401 Community Psychology
- **42.05 Comparative Psychology**
  - 42.0501 Comparative Psychology
- **42.06 Counseling Psychology**
  - 42.0601 Counseling Psychology
- **42.07 Developmental Psychology**
  - 42.0701 Developmental Psychology
- **42.08 Experimental Psychology**
  - 42.0801 Experimental Psychology
- **42.09 Industrial and Organizational Psychology**
  - 42.0901 Industrial and Organizational Psychology
- **42.10 Personality Psychology**
  - 42.1001 Personality Psychology
- **42.11 Physiological Psychology**
  - 42.1101 Physiological Psychology
- **42.12 Psycholinguistics**
  - 42.1201 Psycholinguistics
- **42.13 Psychometrics**
  - 42.1301 Psychometrics
- **42.14 Psychopharmacology**
  - 42.1401 Psychopharmacology
- **42.15 Quantitative Psychology**
  - 42.1501 Quantitative Psychology
- **42.16 Social Psychology**
  - 42.1601 Social Psychology
- **42.99 Psychology, Other**
  - 42.9999 Psychology, Other

43. PROTECTIVE SERVICES

- **43.01 Criminal Justice**
  - 43.0101 Correctional Administration
  - 43.0102 Corrections
  - 43.0103 Criminal Justice Administration
  - 43.0104 Criminal Justice Studies
  - 43.0105 Criminal Justice Technology
  - 43.0106 Forensic Studies
  - 43.0107 Law Enforcement
  - 43.0108 Law Enforcement Administration
  - 43.0109 Security Services
  - 43.0199 Criminal Justice, Other
- **43.02 Fire Protection**
  - 43.0201 Fire Control and Safety Technology
  - 43.0202 Fire Protection Administration
  - 43.0203 Firefighting
  - 43.0299 Fire Protection, Other
- **43.99 Protective Services, Other**
  - 43.9999 Protective Services, Other

44. PUBLIC AFFAIRS

- **44.01 Public Affairs, General**
  - 44.0101 Public Affairs, General
- **44.02 Community Services**
  - 44.0201 Community Services
- **44.03 International Public Service**
  - 44.0301 International Public Service
- **44.04 Public Administration**
  - 44.0401 Public Administration

44.05 Public Policy Studies
- 44.0501 Public Policy Studies

44.06 Public Works
- 44.0601 Public Sanitation
- 44.0602 Public Transportation
- 44.0603 Public Utilities
- 44.0699 Public Works, Other

44.07 Social Work
- 44.0701 Social Work, General
- 44.0702 Medical Social Work
- 44.0799 Social Work, Other

44.99 Public Affairs, Other
- 44.9999 Public Affairs, Other

45. SOCIAL SCIENCES

45.01 Social Sciences, General
- 45.0101 Social Sciences, General

45.02 Anthropology
- 45.0201 Anthropology

45.03 Archeology
- 45.0301 Archeology
- 45.0302 Archeological Technology

45.04 Criminology
- 45.0401 Criminology

45.05 Demography
- 45.0501 Demography

45.06 Economics
- 45.0601 Economics

45.07 Geography
- 45.0701 Geography

45.08 History
- 45.0801 History

45.09 International Relations
- 45.0901 International Relations

45.10 Political Science and Government
- 45.1001 Political Science and Government

45.11 Sociology
- 45.1101 Sociology

45.12 Urban Studies
- 45.1201 Urban Studies

45.99 Social Sciences, Other
- 45.9999 Social Sciences, Other

46. CONSTRUCTION TRADES

46.01 Brickmasonry, Stonemasonry, and Tile Setting
- 46.0101 Brickmasonry, Stonemasonry, and Tile Setting, General
- 46.0102 Brickmasonry, Block, and Stonemasonry
- 46.0103 Tile Setting
- 46.0199 Brickmasonry, Stonemasonry, and Tile Setting, Other

46.02 Carpentry
- 46.0201 Carpentry

46.03 Electrical and Power Transmission Installation
- 46.0301 Electrical and Power Transmission Installation, General
- 46.0302 Electrician
- 46.0303 Lineworker
- 46.0399 Electrical and Power Transmission Installation, Other

46.04 Miscellaneous Construction Trades and Property Maintenance
- 46.0401 Building and Property Maintenance
- 46.0402 Concrete Placing and Finishing
- 46.0403 Construction Inspection
- 46.0404 Drywall Installation
- 46.0405 Floor Covering Installation
- 46.0406 Glazing
- 46.0407 Insulation Installation
- 46.0408 Painting and Decorating
- 46.0409 Plastering
- 46.0410 Roofing
- 46.0499 Miscellaneous Construction Trades and Property Maintenance, Other

46.05 Plumbing, Pipefitting, and Steamfitting
- 46.0501 Plumbing, Pipefitting, and Steamfitting, General
- 46.0502 Pipefitting and Steamfitting
- 46.0503 Plumbing
- 46.0599 Plumbing, Pipefitting, and Steamfitting, Other

46.99 Construction Trades, Other
- 46.9999 Construction Trades, Other

47. MECHANICS AND REPAIRERS

47.01 Electrical and Electronics Equipment Repair
- 47.0101 Electrical and Electronics Equipment Repair, General
- 47.0102 Business Machine Repair
- 47.0103 Communication Electronics
- 47.0104 Computer Electronics
- 47.0105 Industrial Electronics
- 47.0106 Major Appliance Repair
- 47.0107 Motor Repair
- 47.0108 Small Appliance Repair
- 47.0109 Vending and Recreational Machine Repair
- 47.0199 Electrical and Electronics Equipment Repair, Other

47.02 Heating, Air Conditioning, and Refrigeration Mechanics
- 47.0201 Heating, Air Conditioning, and Refrigeration Mechanics, General
- 47.0202 Cooling and Refrigeration
- 47.0203 Heating and Air Conditioning
- 47.0299 Heating, Air Conditioning, and Refrigeration Mechanics, Other

47.03 Industrial Equipment Maintenance and Repair
- 47.0301 Industrial Equipment Maintenance and Repair, General
- 47.0302 Heavy Equipment Maintenance and Repair
- 47.0303 **Industrial Machinery Maintenance and Repair**
- 47.0304 Mine Equipment Maintenance and Repair
- 47.0305 Oil and Gas Drilling Equipment Operation and Maintenance
- 47.0399 Industrial Equipment Maintenance and Repair, Other

47.04 Miscellaneous Mechanics and Repairers
- 47.0401 Electromechanical, Hydraulic, and Pneumatic Instrument Repair
- 47.0402 Gunsmithing
- 47.0403 Locksmithing and Safe Repair
- 47.0404 Musical Instrument Repair
- 47.0405 Operation, Maintenance, and Repair of Audio-Visual Equipment
- 47.0407 Sporting Goods Equipment Repair
- 47.0408 Watch Repair
- 47.0499 Miscellaneous Mechanics and Repairers, Other

47.05 Stationary Energy Sources
- 47.0501 Stationary Energy Sources, General
- 47.0502 Conventional Electrical Power Generation
- 47.0504 Pumping Plants
- 47.0599 Stationary Energy Sources, Other

47.06 Vehicle and Mobile Equipment Mechanics and Repairers
- 47.0601 Vehicle and Mobile Equipment Mechanics and Repairers, General
- 47.0603 Automotive Body Repair
- 47.0604 Automotive Mechanics
- 47.0605 Diesel Engine Mechanics
- 47.0606 Small Engine Repair
- 47.0607 Aircraft Mechanics, Airframe
- 47.0608 Aircraft Mechanics, Powerplant
- 47.0699 Vehicle and Mobile Equipment Mechanics and Repairers, Other

47.99 Mechanics and Repairers, Other
- 47.9999 Mechanics and Repairers, Other

48. PRECISION PRODUCTION

48.01 Drafting
- 48.0101 Drafting, General
- 48.0102 Architectural Drafting
- 48.0103 Civil/Structural Drafting
- 48.0104 Electrical/Electronics Drafting
- 48.0105 Mechanical Drafting
- 48.0199 Drafting, Other

48.02 Graphic and Printing Communications
- 48.0201 Graphic and Printing Communications, General
- 48.0202 Bookbinding
- 48.0203 Commercial Art
- 48.0204 Commercial Photography
- 48.0205 Typesetting, Make-up, and Composition
- 48.0206 Lithography, Photography, and Platemaking
- 48.0207 Photographic Laboratory and Darkroom
- 48.0208 Printing Press Operations
- 48.0209 Silk Screen Making and Printing
- 48.0210 Photoengraving
- 48.0299 Graphic and Printing Communications, Other

48.03 Leatherworking and Upholstering
- 48.0301 Leatherworking and Upholstery, General
- 48.0302 Saddlemaking and Repair
- 48.0303 Upholstering
- 48.0304 Shoe and Boot Repair
- 48.0399 Leatherworking and Upholstering, Other

48.04 Precision Food Production
- 48.0401 Precision Food Production, General
- --------- Chef/Cook (see 20.0403)
- 48.0402 Meatcutting
- 48.0403 Slaughtering and Butchering
- 48.0499 Precision Food Production, Other

48.05 Precision Metal Work
- 48.0501 Precision Metal Work, General
- 48.0502 Foundry Work
- 48.0503 Machine Tool Operation/Machine Shop
- 48.0504 Metal Fabrication
- 48.0505 Metal Patternmaking
- 48.0506 Sheet Metal
- 48.0507 Tool and Die Making
- 48.0508 Welding
- 48.0599 Precision Metal Work, Other

48.06 Precision Work, Assorted Materials
- --------- Commercial Garment and Apparel Construction (see 20.0303)
- 48.0601 Industrial Ceramics Manufacturing
- 48.0602 Jewelry Design, Fabrication, and Repair
- 48.0604 Plastics
- 48.0699 Precision Work, Assorted Materials, Other

48.07 Woodworking
- 48.0701 Woodworking, General
- 48.0702 Furniture Making
- 48.0703 Millwork and Cabinet Making
- 48.0799 Woodworking, Other

48.99 Precision Production, Other
- 48.9999 Precision Production, Other

49. TRANSPORTATION AND MATERIAL MOVING

49.01 Air Transportation
- 49.0101 Air Transportation, General
- 49.0102 Airplane Piloting and Navigation (Commercial)
- 49.0104 Aviation Management
- 49.0105 Air Traffic Control
- 49.0106 Flight Attendants
- 49.0107 Airplane Piloting (Private)
- 49.0199 Air Transportation, Other

49.02 Vehicle and Equipment Operation
- 49.0201 Vehicle and Equipment Operation, General
- 49.0202 Construction Equipment Operation
- 49.0203 Material Handling
- 49.0204 Mining Equipment Operation
- 49.0205 Truck and Bus Driving
- 49.0299 Vehicle and Equipment Operation, Other

49.03 Water Transportation
- 49.0301 Water Transportation, General
- 49.0302 Barge and Boat Operations
- 49.0303 Commercial Fishing Operations
- 49.0304 Deep Water Diving and Life Support Systems
- 49.0305 Marina Operations
- 49.0306 Marine Maintenance
- 49.0308 Sailors and Deckhands
- 49.0399 Water Transportation, Other

49.99 Transportation and Material Moving, Other
- 49.9999 Transportation and Material Moving, Other

50. VISUAL AND PERFORMING ARTS

50.01 Visual and Performing Arts, General
- 50.0101 Visual and Performing Arts, General

50.02 Crafts
- 50.0201 Crafts, General
- 50.0202 Ceramics
- 50.0204 Fiber/Textiles/Weaving
- 50.0205 Glass
- 50.0206 Metal/Jewelry
- 50.0299 Crafts, Other

50.03 Dance
- 50.0301 Dance

50.04 Design
- 50.0401 Design, General
- --------- Environmental Design (see 04.0401)
- --------- Fashion Design (see 19.0902)
- 50.0402 Graphic Design
- 50.0403 Illustration Design
- 50.0404 Industrial Design
- --------- Interior Design (see 04.0501)
- --------- Medical Illustrating (see 17.0504)
- 50.0405 Theater Design
- 50.0499 Design, Other

50.05 Dramatic Arts
- 50.0501 Dramatic Arts

50.06 Film Arts
- 50.0601 Film Arts, General

- 50.0602 Cinematography/Film
- 50.0603 Film Animation
- 50.0604 Holography
- 50.0605 Photography
- 50.0606 Video
- 50.0699 Film Arts, Other

50.07 Fine Arts

- 50.0701 Fine Arts, General
- 50.0702 Art Conservation
- 50.0703 Art History and Appreciation
- 50.0704 Arts Management
- 50.0705 Drawing
- 50.0706 Intermedia
- 50.0708 Painting
- 50.0709 Sculpture
- 50.0710 Printmaking
- 50.0799 Fine Arts, Other

50.09 Music

- 50.0901 Music, General
- 50.0902 Music History and Appreciation
- 50.0903 Music Performance
- 50.0904 Music Theory and Composition
- 50.0999 Music, Other

50.99 Visual and Performing Arts, Other

- 50.9999 Visual and Performing Arts, Other

Chapter 3

Definitions of Instructional Programs

Program Purpose

Award Programs. Programs of instruction requiring a specific amount of educational work and resulting in a diploma, certificate, or degree conferred by the faculty and ratified by the governing board of the school or agency granting the award.

1.0 Elementary/Secondary Programs

1.1 Elementary School Program. A program of instruction usually requiring eight years of elementary school work, the completion of which results in an elementary school diploma or equivalent recognition conferred by the faculty and ratified by the governing board of the school or agency granting the diploma.

1.2 Junior High/Middle School Program. A program of instruction usually requiring three years of junior high/middle school work, the completion of which results in a junior high/middle school diploma or equivalent recognition conferred by the faculty and ratified by the governing board of the school or agency granting the diploma.

1.3 High School Diploma Program. A program of instruction usually requiring three or four years of high school work, the completion of which results in a high school diploma conferred by the faculty and ratified by the governing board of the school or agency granting the diploma.

2.0 Postsecondary Certificates/Awards/Diplomas/Degrees

2.1 Postsecondary Certificate, Award or Diploma of less less than one academic year. A program of instruction requiring less than one year of postsecondary level work, the completion of which results in a postsecondary certificate, award or diploma conferred by the faculty and ratified by the governing board of the institution granting the certificate, award or diploma.

2.2 Postsecondary Certificate, Award, or Diploma, of at least one but less than two academic years. A program of instruction requiring one year or more of full-time equivalent postsecondary level work, the completion of which results in a postsecondary certificate, award or diploma conferred by faculty and ratified by the governing board of the institution granting the certificate, award or diploma.

2.3 Associate's Degree. A program of instruction requiring at least two but less than four years of full-time equivalent college level work, the completion of which results in an associate's degree conferred by the faculty and ratified by the governing board of the institution granting the degree.

2.4 Postsecondary Certificate, Award or Diploma of at least two but less than four academic years. A program of instruction requiring one year or more of full-time equivalent postsecondary level work, the completion of which results in a postsecondary certificate, award or diploma conferred by faculty and ratified by the governing board of the institution granting the certificate, award or diploma.

2.5 Baccalaureate Degree. A program of instruction requiring at least four but not more than five years of full-time equivalent college academic work, the completion of which results in a baccalaureate degree conferred by the faculty and ratified by the governing board of the institution granting the degree.

3.0 First-Professional Certificates/Degrees

3.1 First-Professional Degree. A program of instruction the completion of which results in a first-professional degree conferred by the faculty and ratified by the governing board of the institution granting the degree. In addition, the first-professional degree (1) signifies completion of the academic requirements to begin practice in the profession; (2) requires at least two years of full-time equivalent college level work prior to entrance; and (3) usually requires a total of at least six years of full-time equivalent academic work to complete the degree program, including prior required college level work plus the length of the professional program itself.

3.2 Post-Professional Certificate (Post-Degree). A program of instruction requiring significant achievement beyond the first-professional degree, the completion of which results in a formal post-professional certificate conferred by the faculty and ratified by the governing board of the institution granting the certificate.

4.0 Graduate Certificates/Degrees

4.1 Postbaccalaureate Certificate. A program of instruction requiring significant achievement beyond the baccalaureate degree, the completion of which results in a formal graduate certificate conferred by the faculty and ratified by the governing board of the institution granting the certificate.

4.2 Master's Degree. A program of instruction requiring at least one but not more than two years of full-time equivalent academic work beyond the baccalaureate degree, the completion of which results in a master's degree conferred by the faculty and ratified by the governing board of the institution granting the degree.

4.3 Post-Master's Certificate. A program of instruction requiring completion of an organized program of study of 60 credit hours or its equivalent beyond the master's degree, but does not meet the requirements of academic degrees at the doctoral level and is conferred by the faculty and ratified by governing of the institution granting the certificate.

4.4 Doctoral Degree. A program of instruction requiring at least three years of full-time equivalent academic work beyond the baccalaureate degree, the completion of which results in a doctoral degree conferred by the faculty and ratified by the governing board of the institution granting the degree.

4.5 Post-Doctoral Certificate. A program of instruction requiring significant achievement beyond the doctoral degree, the completion of which results in a formal post-doctoral award conferred by the faculty and ratified by the governing board of the institution granting the degree.

Nonformal Award Programs

5.0 Nonformal Award Programs. Programs of instruction intended to serve learning clienteles and learning objectives that do not result in formal recognition such as a award, diploma, certificate, or degree.

Program Category

01. Agribusiness and Agricultural Production. A summary of groups of instructional programs that prepare individuals to apply scientific knowledge and methods, and technical skills in support of agribusiness and agricultural activities concerned with the management of agricultural enterprises, production and propagation of crops and animals, supplies and services, mechanics, products processing and marketing, and horticulture.

01.01 Agricultural Business and Management. A group of instructional programs that prepare individuals to apply the management of agricultural enterprises economic and business principles involved in the organization, operation, and management of farm and agricultural businesses.

01.0101 Agricultural Business and Management, General. An instructional program that generally prepares individuals to apply the economic and business principles involved in the organization, operation, and management of farm and agricultural businesses.

01.0102 Agricultural Business. An instructional program that prepares individuals to apply business and economic principles relating to the purchasing, selling producing, and marketing of agricultural products and services for maximizing profit.

01.0103 Agricultural Economics. An instructional program that prepares individuals to apply business and economic principles relating to the allocation of resources to the production and marketing of agricultural products and services in the domestic and international markets.

01.0104 Farm and Ranch Management. An instructional program that prepares individuals to manage a farm or ranch. Includes instruction in farm enterprise analysis, accounting, taxes, production, financing, capital resources, purchasing, government programs, farm inputs, performance records, contracts, estate planning, and marketing.

01.0199 Agricultural Business and Management, Other. Any instructional program in agricultural business and management not described above.

01.02 Agricultural Mechanics. A group of instructional programs that prepare individuals to select, operate, maintain, service, sell, and use agriculture/agribusiness power units, machinery, equipment, structures, and utilities. Includes instruction in agricultural power units; the planning and selection of materials for the construction of agricultural facilities; and the mechanical practices associated with irrigation, drainage, runoff, water conservation, and erosion control.

01.0201 Agricultural Mechanics, General. An instructional program that prepares individuals in a general way to select, operate, maintain, service, sell and use agriculture/agribusiness power units, machinery, equipment, structures, and utilities. Includes instruction in agricultural power units; the planning and selection of materials for the construction of agricultural facilities; and the mechanical practices associated with irrigation, drainage, runoff, water conservation, and erosion control.

01.0202 Agricultural Electrification, Power, and Controls. An instructional program that prepares individuals for the safe use of electricity, electrical power, equipment, and automatic controls.

01.0203 Agricultural Mechanics, Construction, and Maintenance Skills. An instructional program that prepares individuals to select, safely use, and maintain hand and power tools, arc and acetylene welding equipment, and construction materials.

01.0204 Agricultural Power Machinery. An instructional program that prepares individuals to select, operate, service, maintain, and repair a variety of agricultural power units and agricultural machinery and equipment. Includes instruction in gas, diesel, and electric units; welding; refrigeration; and hydraulics and other power systems.

01.0205 Agricultural Structures, Equipment, and Facilities. An instructional program that prepares individuals to plan, select materials for, construct, utilize, and maintain agricultural structures, equipment, and environmental facilities such as barns, sheds, milking parlors, manure and other waste handling structures and equipment, forage and grain storage structures, and greenhouses.

01.0206 Soil and Water Mechanical Practices. An instructional program that prepares individuals to implement soil and water management by surveying, planning, laying out, constructing, using, and maintaining irrigation, drainage, and runoff systems.

01.0299 Agricultural Mechanics, Other. Any instructional program in agricultural mechanics not described above.

01.03 Agricultural Production. A group of instructional programs that prepare individuals to plan and economically use facilities, land, water, machinery, chemicals, finance, and labor in the production of plant and animal products.

01.0301 Agricultural Production, General. An instructional program that generally prepares individuals to plan and economically use facilities, land, water, machinery, chemicals, finance, and labor in the production of plant and animal products.

01.0302 Animal Production. An instructional program that prepares individuals to operate animal production enterprises by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of animals such as dairy cattle, beef cattle, horses, swine, sheep, poultry, bees, rabbits, cats, dogs, and earthworms.

01.0303 Aquaculture. An instructional program that prepares individuals for fish farming and marine plant production and harvesting. Includes instruction in feeding, culturing, protecting, and propagating commercially produced marine food products and seaweed, and the uses of marine foods.

01.0304 Crop Production. An instructional program that prepares individuals to operate enterprises concerned with the production of cereal grain, fiber, forage, oilseed, tree fruits and nuts, small fruits, vegetables, and other crops. Includes instruction in soils, plant nutrition, plant and seed identification, genetics, physiology, entomology, plant pathology, plant disease, and pest control, including insecticides, fungicides, herbicides, nonchemical controls, and plant genetic resistance.

01.0305 Game Farm Management. An instructional program that prepares individuals to breed, raise, and protect game animals and wildlife for conservation and stocking purposes. Includes instruction in conservation practices and may involve a study of managerial competencies unique to game farm operation.

01.0399 Agricultural Production, Other. Any instructional program in agricultural production not described above.

01.04 Agricultural Products and Processing. A group of instructional programs that prepare individuals to process food and nonfood products and to inspect those products preparatory to marketing. Includes instruction in the characteristics and properties of agricultural products and of agriculture-related processing techniques and skills (including quality control and mechanical operations involved in marketing, grading, inspecting, packaging, storing, and marketing).

01.0401 Agricultural Products and Processing, General. A group of instructional program that generally prepares individuals to process foods and nonfood products and to inspect those products preparatory to marketing. Includes instruction in the characteristics and properties of agricultural products and of agriculture-related processing techniques and skills (including quality control and mechanical operations involved in marking, grading, inspecting, packaging, storing, and marketing).

01.0402 Food Products. An instructional program that prepares individuals for activities dealing with processing food products such as meat, fish, poultry, eggs, dairy products , fruits and vegetables, and cereal grains for sale and consumption.

01.0499 Agricultural Products and Processing, Other. Any instructional program in agricultural products and processing not described above.

01.05 Agricultural Services and Supplies. A group of instructional programs that prepare individuals to sell supplies for agricultural production; provide agricultural services; and purchase, grade, store, market, and transport agricultural products. Includes instruction in animal breeding, horseshoing, and small animal services.

01.0501 Agricultural Services and Supplies, General. An instructional program that generally prepares individuals to sell supplies for agricultural production; provide agricultural services; and purchase, grade, store, market, and transport agricultural products. Includes instruction in animal breeding, horseshoing, and small animal services.

01.0502 Agricultural Services. An instructional program that prepares individuals to provide agricultural services such as custom work, equipment operation and maintenance, management and finance. Includes instruction in small animal services including breeding, horseshoing, and pet services.

01.0503 Agricultural Supplies Marketing. An instructional program that prepares individuals for purchasing, storing, grading, transporting, and marketing agricultural supplies such as feeds, seeds, fertilizers, chemicals, machinery and parts, and products such as livestock and grains.

01.0504 Pet Grooming. An instructional program that prepares individuals to groom pets such as dogs and cats by clipping the nails, cleaning the ears, brushing the hair, bathing and drying the animal, styling the hair through the use of hair clippers and scissors and beautifying through the use of items such as bows.

01.0505 Animal Training. An instructional program that prepares individuals to teach animals to obey commands, compete in shows, or perform tricks to entertain an audience.

01.0506 Horseshoing. An instructional program that prepares individuals to select aluminum and steel shoes (plates) and fit, shape, and nail shoes to animals' hooves.

01.0507 Horse Handling and Care. An instructional program that prepares individuals to provide for the well-being and training of horses. Includes instruction in obedience training, grooming, diseases and wounds, care of feet and legs, worming, first aid, nutrition and feedstuffs, stable maintenance, equipment care and maintenance, immunization and breeding.

01.0599 Agricultural Services and Supplies, Other. Any instructional program in agricultural services and supplies not described above.

01.06 Horticulture. A group of instructional programs that prepare individuals to produce, process, and market plants, shrubs, and trees used principally for ornamental, recreational, and aesthetic purposes and to establish, maintain, and manage horticultural enterprises such as aboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management, and turf management. Includes instruction in machinery and equipment necessary for each horticultural enterprise.

01.0601 Horticulture, General. An instructional program that generally prepares individuals to produce, process, and market plants, shrubs, and trees used principally for ornamental, recreational, and aesthetic purposes and to establish, maintain, and manage horticultural enterprises such as aboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management, and turf management. Includes instruction in machinery and equipment necessary for each horticultural enterprise.

01.0602 Aboriculture. An instructional program that prepares individuals to cultivate and maintain woody plants and trees used for decoration and shade purposes.

01.0603 Ornamental Horticulture. An instructional program that prepares individuals to produce flowers, foliage, and related plant materials in fields and greenhouses for ornamental purposes, and to arrange, package, and market these materials.

01.0604 Greenhouse Operation and Management An instructional program that prepares individuals to produce plants under glass and in other artificial environments.

01.0605 Landscaping. An instructional program that prepares individuals to locate, plant, and maintain turf, plants, shrubs, or devices for the beautification of home grounds and other areas of human habitation and recreation.

01.0606 Nursery Operation and Management. An instructional program that prepares individuals to produce turf, plants, shrubs, and/or trees for the purpose of transplanting or propagation.

01.0607 Turf Management. An instructional program that prepares individuals to establish, manage, and maintain grassed areas for ornamental and/or recreational purposes.

01.0699 Horticulture, Other. Any instructional program in horticulture not described above.

01.07 International Agriculture. A group of instructional programs (see 01.0701).

01.0701 International Agriculture. An instructional program that prepares individuals to apply the social, biological and, agricultural sciences and technologies as they relate to food production and distribution on a worldwide scale.

01.99 Agribusiness and Agricultural Production, Other. A group of instructional programs in agribusiness and agricultural production not described above.

01.9999 Agribusiness and Agricultural Production, Other. A group of instructional programs in agribusiness and agricultural production not described above.

02. Agricultural Sciences. A summary of groups of instructional programs that describe the production, processing, and distribution of food and fiber.

02.01 Agricultural Sciences, General. A group of instructional programs (see 02.0101).

02.0101 Agricultural Sciences, General. An instructional program that generally describes the production, processing, and distribution of food and fiber.

02.02 Animal Sciences. A group of instructional programs that describes the theories, principles, and applications of appropriate technical skills that apply to the production and management of animals and animal products.

02.0201 Animal Sciences, General. Instructional program that generally describes the production, processing, and distribution of food and fiber.

02.0202 Animal Breeding and Genetics. An instructional program that describes the principles of inheritance and their applications for the improvement of agricultural animals through breeding and selection.

02.0203 Animal Health. An instructional program that describes the environment, drugs, antibiotics, vaccinations, blood tests, and other management factors that affect the prevention and control of diseases in agricultural animals.

02.0204 Animal Nutrition. An instructional program that describes the relationship in agricultural animals of proteins, fats, carbohydrates, water, vitamins, and feed additives in the production of meat, milk, eggs, and wool.

02.0206 Dairy. An instructional program that describes the theories, principles, and applications of appropriate technical skills that apply to the production and management of milk animals and dairy products.

02.0208 Livestock. An instructional program that describes the theories, principles, and applications of appropriate technical skills that apply to the production and management of livestock and livestock products.

02.0209 Poultry. An instructional program that describes the theories, principles, and applications of appropriate technical skills that apply to the production and management of poultry and livestock products.

02.0299 Animal Sciences, Other. Any instructional program in animal sciences not described above.

02.03 Food Sciences. A group of instructional programs (see 02.0301).

02.0301 Food Sciences. An instructional program that describes the principles and practices involved in converting agriculture products to forms suitable for direct human consumption or for storage.

02.04 Plant Sciences. A group of instructional programs that describes the theories and principles of science and practices involved in the production and management of plants for food, feed, fiber, and soil conservation.

02.0401 Plant Sciences, General. An instructional program that generally describes the theories and principles of science and practices involved in the production and management of plants for food, feed, fiber, and soil conservation.

02.0402 Agronomy. An instructional program that describes the principles and practices and involved in the development, production, and management of field crops, including plant breeding, plant diseases, soils, insect control, and weed control.

02.0403 Horticulture Science. An instructional program that describes the principles and practices involved in the production of fruits and vegetables and the management of the pests of these crops.

02.0408 Plant Protection (Pest Management). An instructional program that describes the principles and practices of combining entomology, plant pathology, and weed science with crop production to minimize the economic loss caused by plant pests and to protect the environment.

02.0409 Range Management. An instructional program that describes the principles and practices involved in determining and applying appropriate uses of range resources to ensure sustained productivity and resource conservation.

02.0499 Plant Sciences, Other. Any instructional program in plant sciences not described above.

02.05 Soil Sciences. A group of instructional programs (see 02.0501).

02.0501 Soil Sciences. An instructional program that describes the physical, chemical, and biological sciences and basic principles which relate to the determination of soil properties and their conservation and management for crop production, or other purposes.

02.99 Agricultural Sciences, Other. A group of instructional programs in agricultural sciences not described above.

02.9999 Agricultural Sciences, Other. A group of instructional programs in agricultural sciences not described above.

03. Renewable Natural Resources. A summary of groups of instructional programs that prepare individuals for activities involving the conservation and/or improvement of natural resources such as air, soil, water, land, fish, and wildlife for economic and recreation purposes.

03.01 Renewable Natural Resources, General. A group of instructional programs (see 03.0101).

03.0101 Renewable Natural Resources, General. A group of instructional programs that prepare individuals for activities involving the conservation and/or improvement of natural resources such as air, soil, water, land, fish, and wildlife for economic and recreation purposes.

03.02 Conservation and Regulation. A group of instructional programs that prepare individuals to engage in activities concerned with the preservation, protection, and regulation of renewable natural resources.

03.0201 Conservation and Regulation, General. An instructional program that generally prepares individuals to engage in activities concerned with maintaining the stability and productivity of air, soil, water, land, fish, and wildlife.

03.0202 Conservation. An instructional program that prepares individuals to engage in activities concerned with maintaining the stability and productivity of air, soil, water, land, fish, and wildlife.

03.0203 Resources Protection and Regulation. An instructional program that prepares individuals to enforce regulations and laws pertaining to the protection and economic use of renewable natural resources.

03.0299 Conservation and Regulation, Other. Any instructional program in conservation and regulation not described above.

03.03 Fishing and Fisheries. A group of instructional programs (see 03.0301).

03.0301 Fishing and Fisheries. An instructional program that prepares individuals to engage in fishing for commercial purposes and to manage fish resources to optimize production.

------ Commercial Fishing Operation. (See 49.0303).

03.04 Forestry Production and Processing. A group of instructional programs that prepare individuals to produce, protect, and manage timber and specialty forest crops; maintain, operate, and repair related equipment and machinery; harvest and transport trees as a crop and select, grade, and market forest raw materials for converting into a variety of consumer goods, and to utilize the forest for multiple purposes such as game preserves and recreation.

03.0401 Forestry Production and Processing, General. An instructional program that prepares individuals in a general way to produce, protest, and manage timber and specialty forest crops; maintain, operate, and repair related equipment and machinery; harvest and transport trees as a crop and select, grade, and market forest raw materials for converting into a variety of consumer goods, and to utilize the forest for multiple purposes such as game preserves and recreation.

03.0402 Forest Production. An instructional program that prepares individuals to plant, select, identify, manage, and protect timber and specialty forest crops such as Christmas trees. Includes instruction in maintenance, safe operation, and repair of related equipment.

03.0403 Forest Products Utilization. An instructional program that prepares individuals to select, grade, and market forest raw materials for conversion to consumer goods such as paper, plywood, wallboard, turpentine, plastics, and preservation-treated wood products. Includes instruction in maintenance, safe operation, and repair of related equipment.

03.0404 Forest Products Processing Technology. An instructional program that prepares individuals to assist a manager, engineer, chemist, or forest product scientist in the measurement, analysis of quality, testing, and processing of harvested forest raw materials. Includes instruction in identifying types of raw forest materials; procedures and processes involved, including measuring, assessing quality, evaluating commercial value, and testing strength of fiber or cut products; cutting into finished or semi-finished products; drying or otherwise conditioning; finishing or laminating into plywood marketable products; and cutting, digesting, and fabricating into paperboard or other product form.

03.0405 Logging. An instructional program that prepares individuals to harvest and transport trees as a crop, and maintain, safely operate, and repair logging equipment and machinery.

03.0499 Forestry Production and Processing, Other. Any instructional program in forestry production and processing not described above.

03.05 Forestry and Related Sciences. A group of instructional programs that prepare individuals to apply the science, art, and practice of managing and using for human benefit the natural resources that occur on, and in association with, forest lands.

03.0501 Forestry and Related Sciences, General. An instructional program that generally prepares individuals to apply the science, art, and practice of managing and using for human benefit the natural resources that occur on, and in association with, forest lands.

03.0502 Forestry Science. An instructional program that prepares individuals to manage and use for human benefit the natural resources that occur on, and in association with, forest lands.

03.0504 Forest Engineering. An instructional program that prepares individuals in forest road design and construction, harvesting plans and systems, machinery design and other engineering needs.

03.0506 Forest Management. An instructional program that prepares individuals in the management and administration of forests and forest lands. Includes instruction in silviculture, forest protection, and forest policy, planning and economics.

03.0509 Wood Science. An instructional program that prepares individuals for occupations dealing with wood, wood anatomy and properties, wood engineering, wood utilization, and the provision of useful products. Includes instruction in production and marketing.

03.0599 Forestry and Related Sciences, Other. Any instruction program in forestry and related sciences not described above.

03.06 Wildlife Management A group of instructional programs (see 03.0601).

03.0601 Wildlife Management. An instructional program that prepares individuals in the principles and practices used in the production and improvement of wildlife resources for aesthetic, ecological, and recreational uses of public and private lands.

03.99 Renewable Natural Resources, Other. A group of instructional programs in renewable natural resources not describe above.

03.9999 Renewable Natural Resources, Other. An instructional program in renewable natural resources not described above.

04. Architecture and Environmental Design. A summary of groups of instructional programs that describe the methods to create, adapt, alter, preserve, and control man's physical and social surroundings.

04.01 Architecture and Environmental Design, General. A group of instructional programs (see 04.0101).

04.0101 Architecture and Environmental Design, General. An instructional program that generally describes the methods to create, adapt, alter, preserve, and control man's physical and social surroundings.

04.02 Architecture. A group of instructional programs (see 04.0201).

04.0201 Architecture. An instructional program that describes the processes that promote the use of aesthetic patterns, forms, and structures for human purposes in harmony with the environment.

04.03 City, Community, and Regional Planning. A group of instructional programs (see 04.0301).

04.0301 City, Community, and Regional Planning. An instructional program that describes the application of the planning process to the development of environmental programs designed to deal with urban, regional, and other geographically distinct areas.

04.04 Environmental Design. A group of instructional programs (see 04.0401).

04.0401 Environmental Design. An instructional program that describes the processes, procedures, observations, and techniques essential to the development of designs for interior and exterior environments.

04.05 Interior Design. A group of instructional program (see 04.0501).

04.0501 Interior Design. An instructional program that describes the processes, procedures, observations, and techniques essential to the development of designs for interior environments.

04.06 Landscape Architecture. A group of instructional programs (see 04.0601).

04.0601 Landscape Architecture. An instructional program that describes the design processes as applied to man-made structures and objects and inanimate natural materials in the landscape with the object of furthering human purposes, and synthesizing knowledge of functional relationships, human behavior, ecology, and land form, construction technology, and aesthetic sensitivity.

04.07 Urban Design. A group of instructional program (see 04.0701).

04.0701 Urban Design. An instructional program that describes the systematic process of creating and modifying those physical elements which constitute a city; synthesizing function, aesthetic sensitivity, technology, and social, psychological, and economic well-being.

04.08 Land Use Management and Reclamation. A group of instructional programs (see 04.0801).

04.0801 Land Use Management and Reclamation. An instructional program that describes the application of planning principles and techniques to land uses, problems of slums, and renewal and redevelopment of blighted areas.

04.99 Architecture and Environmental Design, Other. A group of instructional programs in architecture and environmental design not described above.

04.9999 Architecture and Environmental Design, Other. Any instructional program in architecture and environmental design not described above.

05. Area and Ethnic Studies. A summary of groups of instructional programs that describe the history, society, politics, culture, and economics of a particular geographic region or a particular subset of the population sharing common racial characteristics or common traits and customs.

05.01 Area Studies. A group of instructional programs that describe the history, society, politics, culture, and economics of a particular geographic region.

05.0101 African Studies. An instructional program that describes the history, society, politics, culture, and economics of Africa.

05.0102 American Studies. An instructional program that describes the history, society, politics, culture, and economics of the United States of America.

05.0103 Asian Studies. An instructional program that describes the history, society, politics, culture, and economics of Asia.

05.0104 East Asian Studies. An instructional program that describes the history, society, politics, culture, and economics of East Asia, including China, Japan, and Korea.

05.0105 Eastern European Studies. An instructional program that describes the history, society, politics, culture, and economics of Eastern Europe.

05.0106 European Studies, General. An instructional program that describes the history, society, politics, culture, and economics of Europe.

05.0107 Latin American Studies. An instructional program that describes the history, society, politics, culture, and economics of Latin America.

05.0108 Middle Eastern Studies. An instructional program that describes the history, society, politics, culture, and economics of the countries east of the Mediterranean and Aegean Seas to India.

05.0109 Pacific Area Studies. An instructional program that describes the history, society, politics, culture, and economics of Australia, New Thailand, and the Pacific Islands.

05.0110 Russian and Slavic Studies. An instructional program that describes the history, society, politics, culture, and economics of Russia and the Slavic countries.

05.0111 Scandinavian Studies. An instructional program that describes the history, society, politics, culture, and economics of Scandinavia, including Denmark, Norway, Sweden, and Finland.

05.0112 South Asian Studies. An instructional program that describes the history, society, politics, culture, and economics of Southeast Asia, including Pakistan, India, and Bangladesh.

05.0113 Southeast Asian Studies. An instructional program that describes the history, society, politics, culture, and economics of Southeast Asia, including Vietnam, Cambodia, Laos, Thailand, Burma, and Malaysia.

05.0114 Western European Studies. An instructional program that describes the history, society, politics, culture, and economics of Western Europe.

05.0115 Canadian Studies. An instructional program that describes the history, society, politics, culture and economics of Canada.

05.0199 Area Studies, Other. Any instructional program in area studies not described above.

05.02 Ethnic Studies. A group of instructional programs that describe the history, society, politics, culture, and economics of subsets of the population sharing common racial characteristics or common traits and customs.

05.0201 Afro-American (Black) Studies. An instructional program that describes the history, society, politics, culture, and economics of Afro-Americans.

05.0202 American Indian Studies. An instructional program that describes the history, society, politics, culture, and economics of American Indians.

05.0203 Hispanic-American Studies. An instructional program that describes the history, society, politics, culture, and economics of Hispanic-Americans.

05.0204 Islamic Studies. An instructional program that describes the history, society, politics, culture, and economics of Afro-Asian countries in which the population is predominantly Islamic in religious orientation.

05.0205 Jewish Studies. An instructional program that describes the history, society, politics, culture, and economics of the Jewish people.

05.0299 Ethnic Studies, Other. Any instructional program in ethnic studies not described above.

05.99 Area and Ethnic Studies, Other. A group of instructional program in area and ethnic studies not described above.

05.9999 Area and Ethnic Studies, Other. Any instructional program in area and ethnic studies not described above.

06. Business and Management. A summary of groups of instructional programs that describe the processes of purchasing, selling, producing, and interchanging of goods, commodities, and services in profit-making and non-profit public and private institutions and agencies.

06.01 Business and Management, General. A group of instructional programs (see 06.0101).

06.0101 Business and Management, General. An instructional program that generally describes the processes of purchasing, selling, producing, and interchanging of goods, commodities, and services in profit-making and non-profit public and private institutions and agencies.

06.02 Accounting. A group of instructional programs (see 06.0201).

06.0201 Accounting. An instructional program that describes the principles, procedures, and theories of organizing, maintaining, and auditing business and financial transactions.

06.03 Banking and Finance. A group of instructional programs (see 06.0301).

06.0301 Banking and Finance. An instructional program that describes the financial management of industrial and commercial enterprises; of commercial, savings, and mortgages banking; and of investment analysis and portfolio selection.

06.04 Business Administration and Management. A group of instructional programs that describe the planning, organizing, and controlling of a business, including organizational and human aspects, with emphasis on various theories of management, the knowledge and understanding necessary for managing people and functions, and decisionmaking.

06.0401 Business Administration and Management, General. An instructional program that generally describes the planning, organizing, and controlling of a business, including organizational and human aspects, with emphasis on various theories of management, the knowledge and understanding necessary for managing people and functions, and decisionmaking.

06.0402 Contract Management and Procurement/Purchasing. An instructional program that describes the methods, techniques, and processes by which contracts are obtained, monitored, and completed.

06.0403 Product Management. An instructional program that describes the systematic regulation and control of the manufacturing, fabricating, extracting, or processing of goods.

06.0499 Business Administration and Management, Other. Any instructional program in business administration and management not described above.

06.05 Business Economics. A group of instructional programs (see 06.0501).

06.0501 Business Economics. An instructional program that describes the principles and methods for organizing a business firm and for combining resources to produce goods and services, taking account of costs, profits, and the nature and extent of competition in markets.

06.06 Human Resources Development. A group of instructional programs (see 06.0601).

06.0601 Human Resources Development. An instructional program that describes the principles, methods, and techniques that are used to assess and meet the training and career development needs of employees.

06.07 Institutional Management. A group of instructional programs that describe the nature and application of management methods and techniques related to specific kinds of institutions.

06.0701 Hotel/Motel Management. An instructional program that describes the nature and application of management methods and techniques related to hotels and motels.

06.0702 Recreational Enterprises Management. An instructional program that describes the nature and application of management methods and techniques related to recreational enterprises.

06.0703 Resort Management. An instructional program that describes the nature and application of management methods and techniques related to resorts.

06.0704 Restaurant Management. An instructional program that describes the nature and application of management methods and techniques related to restaurants.

06.0705 Transportation Management. An instructional program that describes the nature and application of management methods and techniques related to transportation enterprises.

06.0799 Institutional Management, Other. Any instructional program in institutional management not described above.

06.08 Insurance and Risk Management. A group of instructional programs (see 06.0801).

06.0801 Insurance and Risk Management. An instructional program that describes risk analysis and personal and business insurance and their applications to life, disability, property, liability, and fiduciary trust and annuity underwriting.

06.09 International Business Management. A group of instructional programs (see 06.0901).

06.0901 International Business Management. An instructional program that describes the principles and processes of export sales, trade controls, foreign operations, attitudes, monetary problems, and other areas of concern in the international business environment as it affects, or is affected by, a company's policies, procedures, and products.

06.10 Investments and Securities. A group of instructional programs (see 06.1001).

06.1001 Investments and Securities. An instructional program that describes the securities market, investment concepts, and the effects of economic business cycles on investments. Includes instruction in the study of stocks, mutual funds, bonds, unlisted and listed securities, and yield changes as they affect long-term holdings.

06.11 Labor/Industrial Relations. A group of instructional programs (see 06.1101).

06.1101 Labor/Industrial Relations. An instructional program that describes the history and development of the labor movement, including the analysis and interpretation of Federal and State legislation, union contracts, labor negotiation, conciliation, arbitration, and grievance procedures.

06.12 Management Information Systems. A group of instructional programs (see 06.1201).

06.1201 Management Information Systems. An instructional program that describes computer-based information systems that deal with business data and are generally characterized by logical patterns of clerical work flow from the point of original data gathering to completion of necessary reports and retrieval displays.

06.13 Management Science. A group of instructional programs that describe the application of mathematical and analytical techniques such as modeling, programming, forecasting, and analysis in the design, implementation, monitoring, and control of organizational processes and operations to determine their purpose and effectiveness, and means for attaining maximum efficiency.

06.1302 Operations Research (Quantitative Methods). An instructional program that describes the principles and procedures of analyzing management problems utilizing theory, continuous distributions, mathematical programming, queueing theory, Markov processors, replacement maintenance and inventory models, other mathematical models, and simulation and game theory.

06.1303 Management Science, General. An instructional program that generally describes the application of mathematical and analytical techniques such as modeling, programming, forecasting and analysis in the design, implementation, monitoring, and control of organizational processes and operations to determine their purpose and effectiveness, and the means for attaining maximum efficiency.

06.1399 Management Science, Other. Any instructional program in management science not described above.

06.14 Marketing Management and Research. A group of instructional programs that describe the principles, practices, and concepts involved in the performance of business activities which direct the transfer of goods and the acquisition of services from producer to consumer. Includes instruction in marketing functions and institutions; activities having to do with effecting change in ownership and possession of goods and services; and the study of applied economics relating to the creation of time, place, and possession utility.

06.1401 Marketing Management. An instructional program that describes applying marketing skills in a management position in any industry, generally at a mid-management level or in a management-training program, or to advance to more specialized training in marketing.

06.1402 Marketing Research. An instructional program that describes undertaking research activities such as analysis of data on products and sales, the conducting of surveys and interviews, test marketing of new products, and preparation of recommendations to clients or internal management.

06.1499 Marketing Management and Research, Other. Any instructional program in marketing management and research not described above.

06.15 Organizational Behavior. A group of instructional programs (see 06.1501).

06.1501 Organizational Behavior. An instructional program that describes the behavior and motivations of individuals functioning in groups, the influence of styles of leadership that may be used by managers, and the means of intervention that may be used to improve interpersonal relations and team behavior.

06.16 Personnel Management. A group of instructional programs (see 06.1601).

06.1601 Personnel Management. An instructional program that describes the methods, principles, procedures, and understandings necessary to manage and administer programs that are directed to the welfare and working conditions of employees in a business or other organization.

06.17 Real Estate. A group of instructional programs (see 06.1701).

06.1701 Real Estate. An instructional program that describes the theories and techniques of buying, selling, appraising, renting, managing, and leasing of real property.

06.18 Small Business Management and Ownership. A group of instructional programs (see 06.1801).

06.1801 Small Business Management and Ownership. An instructional program that describes the managerial functions and ownership principles involved in operating a small business.

06.19 Taxation. A group of instructional programs (see 06.1901).

06.1901 Taxation. An instructional program that describes the principles, procedures, and regulations applicable to the maintenance of records and the preparation and filing of income tax returns for individuals, partnerships, corporations, and other types of organizations.

06.20 Trade and Industrial Supervision and Management. A group of instructional programs (see 06.2001).

06.2001 Trade and Industrial Supervision and Management. An instructional program that describes supervising and managing personnel engaged in construction, mechanical repair, manufacturing, transportation, or material moving.

06.21 Computer Installation Management. A group of instructional programs (see 06.2101).

06.2101 Computer Installation Management. An instructional program that describes functions concerned with managing and supervising personnel engaged in computer programming, operating computers, servicing computers, systems analysis, and with coordinating the work of the unit with managers of other departments such as accounting, administration, budget, personnel and production.

06.99 Business and Management, Other. A group of instructional program in business and management not described above.

06.9999 Business and Management, Other. Any instructional program in business and management not described above.

07. Business (Administrative Support). A summary of groups of instructional programs that prepare individuals for a variety of activities in planning, organizing, directing, and controlling all business office systems and procedures. Includes instruction in preparing, transcribing, systematizing, and preserving written communications and records; preparing and analyzing financial records; collecting accounts and receiving and disbursing money; gathering, processing and distributing information and mail; operating office machines and electronic data processing equipment; storing, distributing, and accounting for inventories of materials; operating telephone switchboards and delivering messages; and performing other business office duties.

07.01 Accounting, Bookkeeping, and Related Programs. A group of instructional programs that prepare individuals to systematize information about transactions and activities into accounts and quantitative records, verify accuracy of data by applying auditing principles, prepare budgets and financial reports, operate bookkeeping machines, and pay and receive money.

07.0101 Accounting, Bookkeeping, and Related Programs, General. An instructional program that generally prepares individuals to systematize information about transactions and activities into accounts and quantitative records, verify accuracy of data by applying auditing principles, prepare budgets and financial reports, operate bookkeeping machines, and pay and receive money.

07.0102 Accounting and Computing. An instructional program that prepares individuals to perform paraprofessional duties supporting the accountant in organizing, designing, and computing numerical and financial data.

07.0103 Bookkeeping. An instructional program that prepares individuals to compute, classify, and record numerical data to keep financial records and ledgers and prepare tax reports and monthly statements.

07.0104 Machine Billing, Bookkeeping, and Computing. An instructional program that prepares individuals to utilize office machines for billing, posting, calculating, adding, listing, and mechanizing data (except data processing equipment); obtain final records of financial activities; and prepare other financial statistical reports and information.

07.0199 Accounting, Bookkeeping, and Related Programs, Other. Any instructional program in accounting, bookkeeping, and related programs not described above.

07.02 Banking and Related Financial Programs, General. A group of instructional programs that prepares individuals to perform financial or banking services. Includes instruction in credit collection, transit routing of notes and drafts, receiving and paying out money, and functions associated with processing loans and insurance claims.

07.0201 Banking and Related Financial Programs, General. An instructional program that generally prepares individuals to perform financial or banking services. Includes instruction in credit collection, transit routing of notes and drafts, receiving and paying out money, and functions associated with processing loans and insurance claims.

07.0203 Insurance Clerk. An instructional program that prepares individuals to examine insurance policies held for commercial or personal loans and property under control of the bank or financial institution; determine adequacy of coverage and insurance requirements; verify cash value and premium of policies; and maintain records concerning bank-owned insurance and fire protection on commodities.

07.0205 Teller. An instructional program that prepares individuals to receive and pay out money, and keep records of money and negotiable instruments used in various banking and financial transactions. Includes instruction in computing finance or service charges and transactions, and in operating various computing and recording office machines used in financial institutions.

07.0299 Banking and Related Financial Programs, Other. Any instructional program in banking and related financial programs not described above.

07.03 Business Data Processing and Related Programs. A group of instructional programs that prepare individuals to analyze and design data processing system configurations; write, test, monitor, debug, and maintain data processing programs; and maintain data processing programs; and operate computers and peripheral and data entry equipment.

07.0301 Business Data Processing and Related Programs, General. An instructional program that generally prepares individuals to analyze and design data processing system configurations; write, test, monitor, debug, and maintain data processing programs; and maintain data processing programs; and operate computers and peripheral and data entry equipment.

07.0302 Business Computer and Console Operation. An instructional program that prepares individuals to operate electronic data processing computers. Includes instruction in the review of program instructions, determination of procedures for a specific run, readying equipment for operation, and manipulation and monitoring of controls during operation. Instruction also is given in troubleshooting and all types of on- and off-line operations.

07.0303 Business Data Entry Equipment Operation. An instructional program that prepares individuals to operate keypunch or special-purpose key entry devices to convert source documents to machine input media for electronic data processing, verify and correct data, and monitor equipment during operation.

07.0304 Business Data Peripheral Equipment Operation. An instructional that prepare individuals to operate on-line or off-line peripheral equipment such as sorters, collators, high-speed printers, bursting machines, tape-to-card and card-to-tape converters, and scanners.

07.0305 Business Data Programming. An instructional program that prepares individuals to convert problems into detailed flow charts; code into computer language; test, monitor, debug, document, and maintain computer programs; and design programs for specific uses and machines.

07.0306 Business Systems Analysis. An instructional program that prepares individuals to analyze specific problems for data refinement and summarization; study existing data handling systems to evaluate effectiveness; and develop new systems to meet current and project data processing needs. Includes instruction in the preparation of technical reports and instructional manuals related to establishment of complete operation data systems.

07.0399 Business Data Processing and Related Programs, Other. Any instructional program in business data processing and related programs not described above.

07.04 Office Supervision and Management. A group of instructional programs (see 07.0401).

07.0401 Office Supervision and Management. An instructional program that prepares individuals to supervise employees; budget, analyze, and coordinate clerical and other activities; evaluate, organize, and/or revise office operations and procedures to establish uniformity in handling correspondence, records, and other materials; design various office layouts to facilitate maximum production and efficiency; evaluate employee records; and coordinate activities of clerical department and workers.

07.05 Personnel and Training Programs. A group of instructional programs that prepare individuals to undertake organizational and facilitating functions associated with personnel administration.

07.0501 Personnel and Training Programs, General. An instructional program that prepares individuals in the facilitating functions associated with personnel administration.

07.0502 Training Assisting. An instructional program that prepares individuals in the facilitating functions of an organization dealing with personnel, such as training specialists in industry and test technicians.

07.0503 Personnel Assisting. An instructional program that prepares individuals to assist in implementing policies relating to the personnel administration of an organization. Includes instruction in recruitment, selection, training, promotion, welfare, recreation, safety, compensation, and separation of employees.

07.0599 Personnel and Training Programs, Other. Any instructional program in personnel and training programs not described above.

07.06 Secretarial and Related Programs. A group of instructional programs that prepare individuals to record and transcribe communications and to provide administrative support.

07.0601 Secretarial and Related Programs, General. An instructional program that generally prepares individuals to record and transcribe communications and to abstract, classify, and file information.

07.0602 Court Reporting. An instructional program that prepares individuals to record examination, testimony, judicial opinions, judge's charge to jury, judgment or sentence of court, or other proceedings in court of law by machine shorthand. Includes instructions in the specialized terminology and procedures used in the legal, medical, and insurance fields; skills for recording two-, three- and four-way conversations.

07.0603 Executive Secretarial. An instructional program that prepares individuals to assist management by expediting and facilitating the maintenance of executive and corporation records; planning conferences; preparing record notices, minutes, and resolutions; filing corporate legal documents; and assisting in the administration of policy.

07.0604 Legal Secretarial. An instructional program that prepares individuals to prepare legal papers and correspondence, such as summons, complaints, motions, and subpoenas. Includes instruction in legal terminology, procedures, and documents, as well as law library research.

07.0605 Medical Secretarial. An instructional program that prepares individuals to perform secretarial duties utilizing a knowledge of medical terminology and hospital, clinic, or laboratory procedures. Includes instruction in writing reports, such as case histories, and understanding legal and insurance forms.

07.0606 Secretarial. An instructional program that prepares individuals to carry out administrative and general office duties in a support capacity. Includes instruction in scheduling appointments, giving information to callers, taking and transcribing dictation, and relieving officials of minor administrative and business details.

07.0607 Stenographic. An instructional program that prepares individuals to take direct dictation of correspondence, reports, and other materials, by hand or machine and to transcribe dictated materials.

07.0699 Secretarial and Related Programs, Other. Any instructional program in secretarial and related programs not described above.

07.07 Typing, General Office, and Related Programs. A group of instructional programs that prepare individuals to record, duplicate, and retrieve data, including classifying, sorting, and filing correspondence, records, and other data. Includes instruction in shipping and receiving procedures, stocks and inventory maintenance, and operation of office machines.

07.0701 Typing, General Office, and Related Programs, General. An instructional program that generally prepares individuals to record, duplicate, and retrieve data, including classifying, sorting, and filing correspondence, records, and other data. Includes instruction in shipping and receiving procedures, stocks and inventory maintenance, and operation of office machines.

07.0702 Clerk-Typist. An instructional program that prepares individuals to use a typewriter in variety of activities, including correspondence and compiling and typing reports, application forms, shipping tickets, and other data from clerical records. Includes instruction in filing records and reports, posting information to records, sorting and distributing mail, answering telephones, and computing with calculating machines.

07.0703 Correspondence Clerk. An instructional program that prepares individuals to compose correspondence and related items for the purpose of obtaining or giving information on merchandise, damage claims, credit, bills, or unsatisfactory service. Includes instruction in preparing materials, using a typewriter, routing correspondence, and keeping records of incoming and outgoing written maintenance.

07.0704 Duplicating Machine Operation. An instructional program that prepares individuals to operate machines for the reproduction of handwritten or typewritten material. Includes instruction in keeping records of the number of copies made and basic duplicating-machine maintenance.

07.0705 General Office Clerk. An instructional program that prepares individuals to perform a variety of clerical duties such as copying data; compiling records and reports; tabulating and posting data in record books; providing information and conducting interviews; operating office machines; and handling mail and correspondence.

07.0707 Receptionist and Communication Systems Operation. An instructional program that prepares individuals to answer telephone and information requests, keep records of callers, make appointments, interview people to secure required data, and make travel reservations, to operate telephone switchboards and similar equipment, relay incoming and interoffice calls, establish connections between subscribers, supply information, calculate charges, and operate telegraph and similar equipment for transmitting and receiving messages.

07.0708 Shipping, Receiving, and Stock Clerk. An instructional program that prepares individuals to assemble, pack, address, stamp, and record data on outgoing merchandise and materials; receive, unpack, verify contents, and record data on incoming merchandise and materials; make loading and unloading arrangements; store and issue supplies, materials, and equipment; maintain inventories; requisition stock; keep records; and prepare stock and inventory reports.

07.0709 Traffic, Rate, and Transportation Clerk. An instructional program that prepares individuals to calculate and compile freight rates, passenger fares, and other charges for transportation services from rate tables and tariff schedules; utilize maps to select, lay out, and measure travel routes; calculate total freight, storage, redelivery, and reconsignment charges; and answer inquiries from shippers concerning rates, routing, packing, and procedures.

07.0799 Typing, General Office, and Related Programs, Other. Any instructional program in typing, general office, and related programs not described above.

07.08 Word Processing. A group of instructional programs (see 07.0801).

07.0801 Word Processing. An instructional program that prepares individuals to operate computer-based equipment to prepare correspondence, reports, statistical tables, forms, and other printed materials by keying and storing text or data in the equipment memory and/or magnetic media for subsequent revision and editing, using coded commands to enter, store, edit retrieve and delete information, and to format and print the information to obtain a finished copy.

07.99 Business (Administrative Support), Other. A group of instructional programs in business (administrative support) not described above.

07.9999 Business (Administrative Support), Other. Any instructional program in business (administrative support) not described above.

08. **Marketing and Distribution.** A summary of groups of instructional programs that prepare individuals for occupations directed toward an incident to the flow of industrial and consumer goods in channels of trade, or the provision of services to consumers or users. These programs are concerned with marketing, sales, distribution, merchandising, and management, including ownership and management of enterprises engaged in marketing. Instructional programs prepare individuals to perform one or more of the marketing functions, such as selling, buying, pricing, promoting, financing, transporting, storing, market research, and marketing management. In addition, instructional programs include varying emphases on technical knowledge of products or services marketed, related communication and computation skills, and abilities and attitudes associated with human relations and private enterprise.

08.01 Apparel and Accessories Marketing. A group of instructional programs that prepare individuals to perform marketing functions and tasks in retail establishments, wholesale establishments, and manufacturing firms primarily engaged in the marketing of clothing and related articles for personal wear and adornment.

08.0101 Apparel and Accessories Marketing, General. An instructional program that generally prepares individuals to perform marketing functions and tasks in retail establishments, wholesale establishments, and manufacturing firms primarily engaged in the marketing of clothing and related articles for personal wear and adornment.

08.0102 Fashion Merchandising. An instructional program that prepares individuals to engage in the marketing of apparel and accessories, with particular emphasis given to fashion selling and buying, fashion cycles, fashion coordination, and specialized consulting services.

08.0103 Fashion Modeling. An instructional program that prepares individuals to model garments, such as dresses, coats, underclothing, swimwear, and suits, for garment designers, buyers, sales personnel, and customers.

08.0104 Footwear Marketing. An instructional program that prepares individuals to engage in the marketing of shoes, boots, slippers, and related items, with particular emphasis given to the functional and fashion aspects of all types of footwear.

08.0105 Jewelry Marketing. An instructional program that prepares individuals to engage in the marketing of gems, jewelry, watches, and related items, with special emphasis given to fine jewelry.

08.0199 Apparel and Accessories Marketing, Other. Any instructional program in apparel and accessories marketing not described above.

08.02 Business and Personal Services Marketing. A group of instructional programs that prepare individuals to perform marketing functions and tasks in two types of enterprises: those primarily engaged in providing services to businesses on a fee or contract basis (such as advertising agencies, publishing and broadcasting companies, display services, marketing research and consulting firms, protection agencies, building maintenance firms, and employment agencies), and those providing services to consumers (such as photography studios, barber and beauty shops, gymnasiums, funeral homes, home maintenance firms, pet care centers, and rental business other than vehicle). These programs place emphasis on the marketing activities involved in such enterprises and not on the development of manual or procedural skills that are required to perform a particular service or task. Includes instruction in preparing individuals to perform advertising and merchandise display functions as part of the operation of any enterprise.

08.0201 Business and Personal Services Marketing, General. An instructional program that generally prepares individuals to perform marketing functions and tasks in two types of enterprises: those primarily engaged in providing services to businesses on a fee or contract basis (such as advertising agencies, publishing and broadcasting companies, display services, marketing research and consulting firms, protection agencies, building maintenance firms, and employment agencies), and those providing services to consumers (such as photography studios, barber and beauty shops, gymnasiums, funeral homes, home maintenance firms, pet care centers, and rental business other than vehicle). These programs place emphasis on the marketing activities involved in such enterprises and not on the development of manual or procedural skills that are required to perform a particular service or task. Includes instruction in preparing individuals to perform advertising and merchandise display functions as part of the operation of any enterprise.

------ Advertising (see 09.0201).

08.0202 Display. An instructional program that prepares individuals to assume responsibilities associated with the creation of product or institutional displays and exhibits for the purpose of stimulating sales and goodwill.

08.0203 Marketing of Business or Personal Services. An instructional program that prepares individuals to perform marketing tasks in a business or personal service enterprise, with emphasis on the technical knowledge associated with a particular service field.

08.0299 Business and Personal Services Marketing, Other. Any instructional program in business and personal services marketing not described above.

08.03 Entrepreneurship. A group of instructional programs (see 08.0301).

08.0301 Entrepreneurship. An instructional program that prepares individuals to perform marketing and management functions and tasks associated with owning and operating a business.

------ Small Business Management and Ownership (see 06.1801).

08.04 Financial Services Marketing. A group of instructional programs (see 08.0401).

08.0401 Financial Services Marketing. An instructional program that prepares individuals to perform marketing functions and tasks, in financial institutions such as commercial banks, savings and loan associations, credit agencies, credit unions, consumer-finance companies, collection agencies, security and commodity brokerages, and credit departments of business enterprises.

08.05 Floristry, Farm and Garden Supplies Marketing. A group of instructional programs that prepare individuals to perform marketing functions and tasks in retail, wholesale, and manufacturing establishments; and with growers dealing with live plants, cut flowers, floral arrangements, artificial flowers and plants, garden supplies, equipment, and related items; and seed, fertilizers, and other supplies for farm production.

08.0501 Floristry, Farm and Garden Supplies Marketing, General. An instructional program that generally prepares individuals to perform marketing functions and tasks in retail, wholesale, and manufacturing establishments; and with growers dealing with live plants, cut flowers, floral arrangements, artificial flowers and plants, garden supplies, equipment, and related items; and seed, fertilizers, and other supplies for farm production.

08.0502 Farm and Garden Supplies Marketing. An instructional program that prepares individuals to undertake responsibilities associated with the marketing of supplies used in agricultural production, or plants and products used in landscaping and home gardening.

08.0503 Floristry. An instructional program that prepares individuals to perform marketing functions associated with retail and wholesale floral and greenhouse operations.

08.0599 Floristry, Farm and Garden Supplies Marketing, Other. Any instructional program in floristry, farm and garden supplies marketing not described above.

08.06 Food Marketing. A group of instructional programs that prepare individuals to perform marketing functions and tasks in retail and wholesale establishments, and in food processing and manufacturing firms that deal primarily with food and beverage products for either home preparation and consumption, or for use in commercial and institutional food service installations.

08.0601 Food Marketing, General. An instructional program that generally prepares individuals to perform marketing functions and tasks in retail and wholesale establishments, and in food processing and manufacturing firms that deal primarily with food and beverage products for either home preparation and consumption, or for use in commercial and institutional food service installations.

08.0602 Convenience Store Marketing. An instructional program that prepares individuals to perform marketing functions associated with the marketing of a limited line of convenience-food products.

08.0603 Specialty Foods Marketing. An instructional program that prepares individuals to undertake responsibilities in marketing at retail a specialty-food line, such as confectionery, bakery, wine and cheese, or meat.

08.0604 Supermarket Marketing. An instructional program that prepares individuals to perform marketing functions in large retail food stores.

08.0605 Wholesale Food Marketing. An instructional program that prepares individuals to engage in wholesale operations that supply a general or commodity line of food products and beverages to retailers, restaurants, and institutional users.

08.0699 Food Marketing, Other. Any instructional program in food marketing not described above.

08.07 General Marketing. A group of instructional programs that prepare individuals to perform marketing and management functions and tasks that can be applied broadly in any marketing environment. Principles, practices, and procedures are taught without particular identification with a specific kind of enterprise, product, or service. Extensive knowledge of a trade, product, or service area may have been already acquired by persons enrolled, either by prior training or employment experience; others may desire marketing skills for application in any enterprise or subsequent specialized training in marketing. The focus for these instructional programs may be on institutions of marketing, on specific marketing functions, or on unique kinds of marketing activity.

08.0701 Auctioneering. An instructional program that prepares individuals to sell articles at an auction to the highest bidder.

08.0702 Industrial Sales. An instructional program that prepares individuals to serve as agents or sales representatives for manufacturers and sell a special line of products to other businesses, factories, professional workers, and public and private institutions.

08.0703 International Marketing. An instructional program that prepares individuals to perform marketing activities in enterprises primarily engaged in exporting or importing industrial and consumer goods in world markets, with particular emphasis given to trade controls, foreign trade operations, locating markets, negotiation practices, monetary issues, and international public relations.

------- Marketing Management (see 06.1401).

------- Marketing Research (see 06.1402).

08.0704 Purchasing. An instructional program that prepares individuals to undertake responsibility for purchasing machinery, raw materials, and product components for manufacturing firms; office supplies, furniture, and business machines for a place of business; or the supplies and equipment needed to conduct a retail or service business.

08.0705 Retailing. An instructional program that prepares individuals to apply marketing skills in retail establishments, or to advance to more specialized training in marketing.

08.0706 Sales. An instructional program that prepares individuals to apply marketing skills in a selling capacity in any industry, or to advance to more specialized training in marketing.

08.0707 Wholesaling. An instructional program that prepares individuals to apply marketing skills in wholesale establishments, or to advance to more specialized training in marketing.

08.0708 Marketing, General. An instructional program that generally prepares individuals to perform marketing and management functions and tasks that can be applied broadly in any marketing environment. Principles, practices, and procedures are taught without identification with a specific kind of enterprise, product, or service. Extensive knowledge of a trade, product, or service area may already have been acquired by persons enrolled either by prior training or employment experience; others may desire marketing skills for application in any enterprise or in connection with subsequent specialized training in marketing.

08.0799 General Marketing, Other. Any instructional program in general marketing not described above.

08.08 Home and Office Products Marketing. A group of instructional programs that prepare individuals to perform marketing functions and tasks in retail establishments, wholesale establishments, and manufacturing firms dealing with hardware and building material products and equipment primarily used for furnishing and maintaining the home; or products, equipment, and supplies used in public and private business office operations.

08.0802 Appliance Marketing. An instructional program that prepares individuals to undertake the responsibilities associated with selling and marketing refrigerators, freezers, laundry equipment, stoves, and other electrical or gas a appliances.

08.0803 Building Materials Marketing. An instructional program that prepares individuals to perform marketing activities primarily associated with the marketing of lumber and a general line of building materials such as millwork, roofing, wallboard, bricks, and cement; heating and air-conditioning equipment; or electrical products and supplies.

08.0805 Furniture Marketing. An instructional program that prepares individuals to undertake the responsibilities associated with the marketing of a number of basic hardware lines such as tools, builders' hardware, paint and glass, wallcoverings, and related items.

08.0806 Hardware Marketing. An instructional program that prepares individuals to perform marketing activities primarily associated with the marketing of a number of basic hardware lines such as tools, builders' hardware, paint and glass, wallcoverings, and related items.

08.0807 Office Products and Equipment Marketing. An instructional program that prepares individuals to market a general line of office products and supplies or a specialty line of office furniture or office equipment such as typewriters, data processing equipment, and duplicating equipment.

08.0808 Specialty Home Furnishings Marketing. An instructional program that prepares individuals to undertake the responsibilities associated with selling and marketing a specialty line of home furnishing such as tableware, lamps, fireplace equipment, bedding ,home-entertainment systems, pianos, and antiques.

08.0899 Home and Office Products Marketing, Other. Any instructional program in home and office products marketing not described above.

08.09 Hospitality and Recreation Marketing. A group of instructional programs that prepare individuals to perform marketing and management functions and tasks in any business enterprise primarily engaged in satisfying the desire of people to make productive or enjoyable use of leisure time. The hospitality industry includes lodging services related to entertainment, sports, hobbies, and cultural activities.

08.0901 Hospitality and Recreation Marketing, General. An instructional program that generally prepares individuals to perform marketing and management functions and tasks in any business enterprise primarily engaged in satisfying the desire to make productive or enjoyable use of leisure time. The hospitality industry includes lodging services and related convention services, and food and beverage services. Recreation includes products and services related to entertainment, sports, hobbies, and cultural activities.

------ Hotel/Motel Management (see 06.0701).

08.0902 Marketing of Hotel/Motel Services. An instructional program that prepares individuals to assume operational responsibilities associated with marketing the services of hotels and motels.

08.0903 Marketing of Recreational Services. An instructional program that prepares individuals to perform sales and marketing tasks in an enterprise which caters to the recreational needs of consumers, with special emphasis given to the technical knowledge associated with a particular recreational service field.

------- Recreational Enterprises Management (see 06.0702).

08.0904 Recreational Products Marketing. An instructional program that prepares individuals to undertake the marketing activities involved in selling or renting a special or full line of supplies and equipment, other than vehicles, used for recreational or sporting purposes.

------- Resort Management (see 06.0703).

------- Restaurant Management (see 06.0704).

08.0905 Waiter/Waitress and Related Services. An instructional program that prepares individuals to perform tasks designed to increase the sales of a particular restaurant or chain of restaurants.

08.0999 Hospitality and Recreation Marketing, Other. Any instructional program in hospitality and recreation marketing not described above.

08.10 Insurance Marketing. A group of instructional programs (see 08.1001).

08.1001 Insurance Marketing. A instructional program that prepares individuals to perform marketing functions and tasks related to the sale and placement of insurance contracts with carriers.

----- Real Estate (see 06.17).

------ Real Estate (see 06.1701).

08.11 Transportation and Travel Marketing. A group of instructional programs that prepare individuals to perform marketing and management functions and tasks in enterprises engaged in passenger and freight transportation, travel services, warehousing, and other services incidental to transportation, storage, travel, or tourism.

08.1101 Transportation and Travel Marketing, General. An instructional program that generally prepares individuals to perform marketing and management functions and tasks in enterprises engaged in passenger and freight transportation, travel services, warehousing, and other services incidental to transportation, storage, travel, or tourism.

08.1102 Transportation Marketing. An instructional program that prepares individuals to facilitate the provision of any form of transport used for the physical movement of raw materials, products, people, and personal effects.

08.1104 Tourism. An instructional program that prepares individuals to assume initiatives in any business, agency or institution for attracting and serving the traveling public, with the objective of stimulating the local, State, or National economy.

------ Transportation Management (see 06.0705).

08.1105 Travel Services Marketing. An instructional program that prepares individuals to furnish travel information and to act as agents in arranging tours and transportation, or to act as independent ticket agencies for transportation carriers.

08.1106 Warehouse Services Marketing. An instructional program that prepares individuals to undertake the marketing responsibilities associated with the storage of farm products, furniture and other household goods, or commercial products of any kind.

08.1199 Transportation and Travel Marketing, Other. Any instructional in transportation and travel marketing not described above.

08.12 Vehicles and Petroleum Marketing. A group of instructional programs that prepare individuals to perform marketing and management functions and tasks in retail or wholesale establishments engaged in the distribution of petroleum products, or in retail, wholesale, manufacturing, and service establishments engaged in the marketing of cars, vans, trucks, mobile units, boats, other recreational vehicles, tractors, and other farm vehicles and implements, as well as related parts, accessories, equipment, and services.

08.1201 Vehicles and Petroleum Marketing, General. An instructional program that generally prepares individuals to perform marketing and management functions and tasks in retail or wholesale establishments engaged in the distribution of petroleum products, or in retail, wholesale, manufacturing, and service establishments engaged in the marketing of cars, vans, trucks, mobil units, boats, other recreational vehicles, tractors, and other vehicles and implements, as well as related parts, accessories, equipment, and services.

08.1203 Automotive Vehicles and Accessories Marketing. An instructional program that prepares individuals to engage in the marketing of new and used cars, vans, trucks, and related parts.

08.1204 Petroleum Wholesaling. An instructional program that prepares individuals to perform activities involved in wholesale marketing of packaged and bottled petroleum products and gasoline from bulk-liquid-storage facilities and terminals.

08.1205 Recreational Vehicles and Accessories Marketing. An instructional program that prepares individuals to engage in the marketing of various kinds of vehicles and conveyances designed for recreational purposes, including boats and bicycles.

08.1206 Service Station Retailing. An instructional program that prepares individuals to perform activities involved in retail marketing of gasoline, lubricating oils, and related products in automobile and marine service stations.

08.1207 Vehicle Rental and Leasing. An instructional program that prepares individuals to provide marketing services relating to the renting and leasing of vehicles in a business enterprise, such as car-rental systems.

08.1299 Vehicles and Petroleum Marketing, Other. Any instructional program in vehicles and petroleum marketing not described above.

08.99 Marketing and Distribution, Other. A group of instructional programs in marketing and distribution not described above.

08.9999 Marketing and Distribution, Other. Any instructional program in marketing and distribution not described above.

09. Communications. A summary of groups of instructional programs that describe the creation, transmission, and evaluation of messages.

09.01 Communications, General. A group of instructional programs (see 09.0101).

09.0101 Communications, General. An instructional program that general describes the creation, transmission, and evaluation of messages.

09.02 Advertising. A group of instructional programs (see 09.0201).

09.0201 Advertising. An instructional program that describes the creation, execution, transmission, and evaluation of commercial messages concerned with the promotion and sale of products and services.

09.03 Communications Research. A group of instructional programs (see 09.0301).

09.0301 Communications Research. An instructional program that describes the methods and techniques by which the creation, transmission, and evaluation of messages can be facilitated.

09.04 Journalism (Mass Communications). A group of instructional programs (see 09.0401).

09.0401 Journalism (Mass Communications). An instructional program that describes the principles and methods of gathering, processing, evaluating, and disseminating through mass media, information about current events and issues.

09.05 Public Relations. A group of instructional programs (see 09.0501).

09.0501 Public Relations. A instructional program that describes the methods and techniques by which the public can be induced to have understanding for and goodwill towards a person, firm, or institution.

09.06 Radio/Television News Broadcasting. A group of instructional programs (see 09.0601).

09.0601 Radio/Television News Broadcasting. An instructional program that describes the methods and techniques by which radio and television news programs are produced and broadcasted.

09.07 Radio/Television, General. A group of instructional programs (see 09.0701).

09.0701 Radio/Television, General. An instructional program that describes the methods and techniques used to produce and broadcast programs on radio and television.

09.08 Telecommunications. A group of instructional programs (see 09.0801).

09.0801 Telecommunications. An instructional program that describes voice and data information technologies, including telephone system, cable TV, and videotex and data networks.

09.99 Communications, Other. A group of instructional programs in communications not described above.

09.9999 Communications, Other. Any instructional program in communications not described above.

10. Communications Technologies. A summary of groups of instructional programs that prepare individuals to support and assist communication professionals and skilled communication workers. Programs stress specialized, practical knowledge related to the mechanical, scientific, or technical aspects of communications.

10.01 Communications Technologies. A group of instructional programs that prepare individuals to support and assist communication professionals and skilled communication workers. Programs stress specialized, practical knowledge related to the mechanical, scientific, or technical aspects of communication.

10.0101 Educational Media Technology. An instructional program that prepares individuals to operate, adjust, make minor repairs for, and diagnose major difficulties in audiovisual devices, equipment, and systems used in education or communication applications, including loudspeaker systems, slides, movie film, or overhead projection equipment and tape-recording equipment. Includes instruction in construction of equipment; the procedures, process, and techniques for making overhead projection materials, photographic slides, graphs, charts, tables, or other projectable materials; the administration of equipment acquisition, storage, servicing, controlling, and packing for transportation; cost and maintenance.

10.0102 Motion Picture Technology. An instructional program that prepares individuals to support cinematographers or directors in the motion picture industry. Includes instruction in equipment, processes, and procedures used in producing motion pictures; components and systems of devices for photography, lighting, set design, and sound recording and rerecording sound and special effects.

10.0103 Photographic Technology. An instructional program that prepares individuals as highly skilled photographic technicians. Includes instruction in basic and applied physics and chemistry, with the supporting mathematics of photographic processes; light, optics, and optical systems of black-and-white and color photography; the science, design, and function of cameras and related devices such as light meters; source and applications of

special photographic light; systems of mechanisms for still photography, moving pictures, photographic composition, portrait photography, and medical photography, techniques for taking, developing, mounting still pictures; and techniques for cutting, splicing, and modifying moving-picture films.

10.0104 Radio and Television Production and Broadcasting Technology. An instructional program that prepares individuals to support broadcast managers in the production of materials and the production and broadcasting of materials or programs. Includes instruction in the equipment, processes, and procedures used in producing and making radio or television broadcast operations; electronic communication, both radio and television; script and program preparation; photographic and audiorecording of material to be broadcast; monitoring, modulating, and controlling the broadcast processes; and recording and storing broadcast materials.

10.0105 Sound Recording Technology. An instructional program that prepares individuals to record music, dialogue, or sound effects of phonograph recording sessions, radio and television broadcasts, movie soundtracks, training courses and conferences.

10.0106 Video Technology. An instructional program that prepares individuals to regulate the quality, brightness, and contrast of television pictures being transmitted; to operate and maintain video tape recording equipment; and to edit video tapes for broadcast, industrial, educational, and theatrical applications.

10.0199 Communications Technologies, Other. Any instructional program in communications technologies not described above.

11. Computer and Information Sciences. A summary of groups of instructional programs that describe the coding, processing, and storage of data through repetitious and highly complex mathematical operations at high speed, and in accordance with strictly defined systems and procedures.

11.01 Computer and Information Sciences, General. A group of instructional programs (see 11.0101).

11.0101 Computer and Information Sciences, General. An instructional program that generally describes the coding, processing, and storage of data through repetitious and highly complex mathematical operations at high speed, and in accordance with strictly defined systems and procedures.

11.02 Computer Programming. A group of instructional programs (see 11.0201).

11.0201 Computer Programming. An instructional program that describes the methods and procedures used in flow charting and writing instructions in computer language for the direction of computer operation in the solution of a problem.

11.03 Data Processing. A group of instructional (see 11.0301).

11.0301 Data Processing. An instructional program that describes computers and computer programming.

11.04 Information Sciences and Systems. A group of instructional programs (see 11.0401).

11.0401 Information Sciences and Systems. An instructional program that describes the methods of creating, organizing , storing, and accessing organized fields of information.

11.05 Systems Analysis. A group of instructional programs (see 11.0501).

11.0501 Systems Analysis. An instructional program that describes the principles and techniques involved in the design of large-scale computer programs. Includes instruction in modeling, flow charting, data organization, and the impact of the programs on organizational objectives.

11.06 Microcomputer Applications. A group of instructional programs (see 11.0601).

11.0601 Microcomputer Applications. An instructional program that prepares individuals to develop microcomputer systems and application packages for particular uses, e.g. accounts receivable, accounts payable, inventory control, time management. Includes instruction in the concept and capabilities of microcomputers, programming, and design and implementation of disk-operating systems.

11.99 Computer and Information Sciences, Other. A group of instructional programs in computer and information sciences not described above.

11.9999 Computer and Information Sciences, Other. An instructional program in computer and information sciences not described above.

12. Consumer, Personal and Miscellaneous Services. A summary of instructional programs that prepare individuals to provide a variety of services to individual consumers as well as to organizations such as businesses and industries.

12.01 Drycleaning and Laundering Services. A group of instructional programs (see 12.0101).

12.0101 Drycleaning and Laundering Services. An instructional program that prepares individuals to operate and manage drycleaning and laundering plants. Includes instruction in receiving and inspecting garments; identifying fabrics; identifying spots and using cleaning agents; washing and dry and wet cleaning; dying and bleaching; ironing, pressing, sorting, folding, and wrapping household furnishings, wearing apparel and accessories; making minor alterations and repair of articles; and using a variety of hand and power tools and equipment.

12.02 Entertainment Services. A group of instructional programs that prepare individuals to perform a variety of services related to the sale of food, beverages, and entertainment.

12.0202 Bartending. An instructional program that prepares individuals to mix and serve alcoholic and nonalcoholic drinks to patrons of a bar or other drinking establishment, following standard recipes.

12.0203 Card Dealing. An instructional program that prepares individuals to run a card game at a casino or other gambling establishment.

12.0204 Umpiring. An instructional program that prepares individuals to officiate at a variety of sporting events.

12.0299 Entertainment Service, Other. Any instructional program in entertainment service not described above.

12.03 Funeral Services. A group of instructional programs (see 12.0301).

12.0301 Funeral Services. A instructional program that prepares individuals to perform sanitary and embalming preparations of interment, in conformity with legal requirements. Includes instruction in human physiology and anatomy, with particular emphasis on the circulatory system; the underlying chemistry and application of embalming compounds and products; the procedures, techniques, and methods used in embalming compounds and products; the procedures, techniques, and methods used in embalming and preparation for interment, with special emphasis on sanitation and on potential pathological hazards and precautions; and the material and techniques of applied cosmetology used in preparation for interment.

12.04 Personal Services. A group of instructional programs that prepare individuals to render a variety of personal services.

12.0401 Personal Services, General. An instructional program that generally prepares individuals to render a variety of personal services.

12.0402 Barbering/Hairstyling. An instructional program that prepares individuals to cut, shampoo, and style hair; and shave; with special attention to hygiene, skin and scalp disease, and equipment sterilization. Instruction qualifies students for licensing examinations.

12.0403 Cosmetology. An instructional program that prepares individuals to care for and beautify hair, complexion, and hands by giving shampoos, rinses, and scalp treatments, styling, setting, cutting, dyeing, tinting, permanent waving, and bleaching hair; and giving facials, manicures, and hand and arm massages, with emphasis on hygiene, sanitation, customer relations, and salon management. Instruction qualifies student for licensing examinations.

12.0404 Electrolysis. An instructional program that prepares individuals to remove hair, warts, moles, and birthmarks from and individual by means of an electric current applied to the body with a needle-shaped electrode.

12.0405 Massage. An instructional program that prepares individuals to administer systematic friction, stroking, slapping, kneading or tapping to stimulate circulation, increase suppleness, promote healing, and induce relaxation in the human body.

12.0406 Make-up Artistry. An instructional program that prepares individuals to apply cosmetics, wax, rubber and other materials to the faces or body areas of actors and actresses to enhance appearance or to alter physical characteristics to accord with the characters they are portraying.

12.0499 Personal Services, Other. Any instructional programs in consumer, personal, and miscellaneous services not described above.

12.99 Consumer, Personal and Miscellaneous Services, Other. Any instructional program in consumer, personal, and miscellaneous services not described above.

12.9999 Consumer, Personal and Miscellaneous Services, Other. Any instructional program in consumer, personal, and miscellaneous services not described above.

13. Education. A summary of groups of instructional programs that describe the art of processes of imparting knowledge, developing the power of reasoning and judgment, and preparing others intellectually for a more mature life.

13.01 Education, General. A group of instructional programs (see 13.0101).

13.0101 Education, General. An instructional program that generally describes the art of processes of imparting knowledge, developing the powers of reasoning and judgment, and preparing others intellectually for a more mature life.

13.02 Bilingual/Crosscultural Education. A group of instructional programs (see 13.0201).

13.0201 Bilingual/Crosscultural Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in English and another language which may be their native tongue.

13.0202 Bilingual Education Assisting. An instructional program that prepares individuals to assist a teacher conduct and carry out the objectives of a bilingual/crosscultural program. Includes instruction in methodology and materials for use with non-English speaking students and with students who have learned or are learning English as a second language.

13.0299 Bilingual/Crosscultural Education, Other. Any instructional program in bilingual/crosscultural education not described above.

13.03 Curriculum and Instruction. A group of instructional programs (see 13.0301).

13.0301 Curriculum and Instruction. An instructional program that describes the theories, methods, and procedures of designing, controlling, developing, and integrating educational activities and programs.

13.04 Education Administration. A group of instructional programs that describe the principles and techniques of planning organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling educational institutions and agencies.

13.0401 Education Administration, General. An instructional program that generally describes the principles and techniques of planning organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling educational institutions and agencies.

13.0402 Administration of Special Education. An instructional program that describes the principles and techniques of planning organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling educational institutions.

13.0403 Adult and Continuing Education Administration. An instructional program that describes the principles and techniques of planning organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling adult and continuing educational programs and institutions.

13.0404 Educational Supervision. An instructional program that describes the principles, theories, methods, and practices of directing, controlling and administering the resources of educational institutions and agencies.

13.0405 Elementary and Secondary Education Administration. An instructional program that describes the principles, and techniques of planning, organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling elementary and secondary education programs and institutions.

13.0406 Higher Education Administration. An instructional program that describes the principles, and techniques of planning, organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling higher education institutions and agencies.

13.0407 Community College Education Administration. An instructional program that describes the principles, and techniques of planning, organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling junior and community college institutions.

13.0499 Education Administration, Other. Any instructional program in education administration not described above.

13.05 Educational Media. A group of instructional programs (see 13.0501).

13.0501 Educational Media. An instructional program that describes the principles and techniques of applying various forms of media to the process of instruction and to the production of educational materials.

13.06 Evaluation and Research. A group of instructional programs that generally describes the principles and procedures of searching for new knowledge and providing information about educational programs, personnel, methods, and theories.

13.0601 Evaluation and Research, General. An instructional program that generally describes the principles and procedures of searching for new knowledge and providing information about educational programs, personnel, methods, and theories.

13.0603 Educational Statistics and Research. An instructional program that describes the application of mathematical and statistical models and research methodology in education.

13.0604 Educational Testing, Evaluation, and Measurement. An instructional program that describes the principles and procedures used in the testing, evaluating, and measuring of educational programs, personnel, methods, and theories.

13.0605 Elementary and Secondary Research. An instructional program that describes the principles, and procedures of searching for new knowledge and providing information about elementary and secondary education programs, personnel, methods, and theories.

13.0606 Higher Education Research. An instructional program that describes the principles, and procedures of searching for new knowledge and providing information about higher education programs, personnel, methods, and theories.

13.0699 Evaluation and Research, Other. Any instructional program in evaluation and research not described above.

13.07 International and Comparative Education. A group of instructional programs (see 13.0701).

13.0701 International and Comparative Education. An instructional program that describes the similarities and differences between educational theory and practice in different countries and various cultures for the purpose of deepening understanding and solving educational problems.

13.08 School Psychology. A group of instructional programs (see 13.0801).

13.0801 School Psychology. An instructional program that describes the study, selection, and application of methods, facts, and theories of psychology that relate to individual learning in formal courses of instruction

13.09 Social Foundations. A group of instructional programs (see 13.0901).

13.0901 Social Foundations. An instructional program that describes the impact and relationship between society and education.

13.10 Special Education. A group of instructional programs that describe the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose physical, emotional, mental, or social needs require a special curriculum and education setting.

13.1001 Special Education, General. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose physical, emotional, mental, or social needs require a special curriculum and education setting.

13.1002 Education of the Culturally Disadvantaged. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose behavior may be in conflict with norms of home, school, or community but is not in conflict with subgroup norms, and is not related to personal distress.

13.1003 Education of the Deaf and Hearing Impaired. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose have an impairment in hearing which adversely affects their educational performance.

13.1004 Education of the Gifted and Talented. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students capable of high performance, including those with demonstrated achievement or ability in any one or more of these areas: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, visual and performing arts, or psychomotor ability.

13.1005 Education of the Emotionally Handicapped. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students exhibiting one or more of the following characteristics which over a long period of time and to a marked degree adversely affects educational performance: (a) an inability to learn which cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems.

13.1006 Education of the Mentally Handicapped. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose impaired mental development adversely affects their educational performance.

13.1007 Education of the Multiple Handicapped. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have a combination of handicaps which adversely affects their educational performance.

13.1008 Education of the Physically Handicapped. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have severe physical impairment which adversely affects their educational performance.

13.1009 Education of the Visually Handicapped. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have visual impairment which adversely affects their educational performance.

13.1010 Remedial Education. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students deficient in the general competencies necessary for a regular curriculum and educational settings.

13.1011 Specific Learning Disabilities. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose perception, communication, or motor skill require a special curriculum and educational settings.

13.1012 Speech Correction. An instructional program that generally describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have a speech impairment which adversely affects their educational performance.

13.1099 Special Education, Other. Any instructional program in special education not described above.

13.11 Student Counseling and Personnel Services. A group of instructional programs (see 13.1101).

13.1101 Student Counseling and Personnel Services. An instructional program that describes the theories, methods, functions, operations, and services involved in the personal, social, educational, and vocational development of students and the principles and techniques of managing, directing, and developing an organized unit providing student services within an educational institution.

13.12 Teacher Education, General Programs. A group of instructional programs that describe the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students at all levels.

13.1201 Adult and Continuing Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities to meet the unique needs of adults and youths who are beyond the age of compulsory school attendance and who have either completed or interrupted their formal education.

13.1202 Elementary Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students at the elementary level.

13.1203 Junior High/Middle School Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students at the junior high level.

13.1204 Pre-Elementary Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students at the pre-elementary level.

13.1205 Secondary Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students at the secondary level.

13.1299 Teacher Education, General Programs, Other. Any instructional program in teacher education, general programs not described above.

13.13 Teacher Education, Specific Subject Areas. A group of instructional programs that describe the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students in specific subject areas.

13.1301 Agricultural Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, and retrain students in agricultural occupations.

13.1302 Art Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of art.

13.1303 Business Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of business.

13.1304 Driver and Safety Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of driver and safety education.

13.1305 English Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of English.

13.1306 Foreign Languages Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of foreign languages.

13.1307 Health Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of health education.

13.1308 Home Economics Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating programs which prepare, and retrain students for homemaking and wage earning occupations requiring the knowledge and skills of home economics subject matter.

13.1309 Industrial Arts Education. An instructional program that describes the theories, methods, and techniques for teaching the subject matter of industrial education.

13.1310 Marketing and Distributive Education. An instructional program that describes the theories, methods, and techniques for designing, implementing and evaluating programs which provide students with various combinations of subject matter and learning experiences related to the flow of good and services from the producer to the consumer.

13.1311 Mathematics Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of mathematics.

13.1312 Music Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of music.

13.1313 Nutritional Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of nutrition.

13.1314 Physical Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of physical education.

13.1315 Reading Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in reading the language arts.

13.1316 Science Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of life sciences and physical sciences.

13.1317 Social Science Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of social sciences.

13.1318 Social Studies Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of social studies.

13.1319 Technical Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students for the job opportunities in specialized technical fields or occupations.

13.1320 Trade and Industrial Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in a wide range of trade and industrial occupations.

13.1321 Computer Education. An instructional program that describes the theories, methods, and techniques involved in teaching the subject matter of computer education.

13.1399 Teacher Education, Specific Subject Areas, Other. Any instructional program in teacher education, specific subject areas not described above.

13.14 Teaching English as a Second Language/Foreign Language. A group of instructional programs (see 13.1401).

13.1401 Teaching English as a Second Language/Foreign Language. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose native language is not English.

13.15 Teacher Assisting. A group of instructional programs (see 13.1501)

13.1501 Teacher Assisting. An instructional program that prepares individuals to assist a classroom teacher in carrying out the objectives of a specifically assigned teaching area. Includes instruction in preparing lesson plans and various teaching aids such as bibliographies, charts and graphs; in making presentations to students; and in assisting individual students or groups to solve particular problems.

13.99 Education, Other. A group of instructional programs in education not described above.

13.9999 Education, Other. An instructional program in education not described above.

14. Engineering. A summary of groups of instructional programs that describe the mathematical and natural sciences gained by study, experience, and practice and applied with judgment to develop ways to economically utilize the materials and force of nature for the benefit of mankind.

14.01 Engineering, General. A group of instructional programs (see 14.0101).

14.0101 Engineering, General. An instructional program that generally describes the mathematical and natural sciences gained by study, experience, and practice and applied with judgment to develop ways to economically utilize the materials and forces of nature for the benefit of mankind.

14.02 Aerospace, Aeronautical, and Astronautical Engineering. A group of instructional programs (see 14.0201).

14.0201 Aerospace, Aeronautical, and Astronautical Engineering. An instructional program that describes the design, construction, operation, and maintenance of aircraft, space vehicles, and power units, and to the special programs of flight in both the earth's atmosphere and space, including the flight of air vehicles and the launching, guidance, and control of missiles, earth satellites, and space vehicles and probes.

14.03 Agricultural Engineering. A group of instructional programs (see 14.0301).

14.0301 Agricultural Engineering. An instructional program that describes the design, construction, operation, and maintenance of equipment, structures, machinery, and energy devices for the purpose of improving the production of food and fiber.

14.04 Architectural Engineering. A group of instructional programs (see 14.0401).

14.0401 Architectural Engineering. An instructional program that describes the design and application of materials, components, and structural systems for buildings, including environmental control equipment.

14.05 Bioengineering and Biomedical Engineering. A group of instructional programs (see 14.0501).

14.0501 Bioengineering and Biomedical Engineering. An instructional program that describes the application of engineering and technological concepts, principles, and practices to human and other living systems.

14.06 Ceramic Engineering. A group of instructional programs (see 14.0601).

14.0601 Ceramic Engineering. An instructional program that describes the techniques of designing, developing, and controlling processes that are involved in the manufacture of clay and ceramic-ware, porcelain, china, pottery, and related substances.

14.07 Chemical Engineering. A group of instructional programs (see 14.0701).

14.0701 Chemical Engineering. An instructional program that describes the nature of chemical processes, heat and mass transfer, the handling and treatment of liquids and gases, and physical and physical-chemical operations.

14.08 Civil Engineering. A group of instructional programs (see 14.0801).

14.0801 Civil Engineering. An instructional program that describes the conception, analysis, design, testing, construction, and operation of structures, transportation components and systems, water resource and conveyance systems, pollution control systems, water treatment systems, and appurtenant works.

14.09 Computer Engineering. A group of instructional programs (see 14.0901).

14.0901 Computer Engineering. An instructional program that describes the principles and techniques of designing and producing the mechanical, magnetic, electrical, and electronic elements of computer hardware and supporting systems.

14.10 Electrical, Electronics, and Communications Engineering. A group of instructional programs that describe the theory and application of electrical and electronic systems and their components, including circuits, electromagnetic fields, and energy sources.

14.1001 Electrical, Electronics, and Communications Engineering. An instructional program that describes the theory and application of electrical and electronic systems and their components, including circuits, electromagnetic fields, and energy sources.

14.1002 Microelectronic Engineering. An instructional program that describes the design and fabrication of integrated circuits (semiconductor or micro chips). Instruction provides a broad interdisciplinary background in optics, chemistry, device physics, computers, electrical engineering, and statistics.

14.11 Engineering Mechanics. A group of instructional programs (see 14.1101).

14.1101 Engineering Mechanics. An instructional program that describes the theory and practical application of the action of forces on bodies, with motion, and with statics, kinematics, and kinetics.

14.12 Engineering Physics. A group of instructional programs (see 14.1201).

14.1201 Engineering Physics. An instructional program that describes the physical principles underlying the fields of engineering.

14.13 Engineering Science. A group of instructional programs (see 14.1301).

14.1301 Engineering Science. An instructional program that describes the usefulness of subject matters such as physics, chemistry, biology, and mathematics in engineering.

14.14 Environmental Health Engineering. A group of instructional programs (see 14.1401).

14.1401 Environmental Health Engineering. An instructional program that describes the techniques of identification and reduction of pollution, contamination, and deterioration of the natural environment, including the methodology for corrective action.

14.15 Geological Engineering. A group of instructional programs (see 14.1501).

14.1501 Geological Engineering. An instructional program that describes the practical application of scientific principles related to the physical history of the earth, the rocks and soils of which it is composed, and the physical changes in its structure.

14.16 Geophysical Engineering. A group of instructional programs (see 14.1601).

14.1601 Geophysical Engineering. An instructional program that describes the practical application of scientific principles related to the physics of the earth and its environment in space, including phenomena such as fields and forces, mass and motion, time and space, and matter and energy.

14.17 Industrial Engineering. A group of instructional programs (see 14.1701).

14.1701 Industrial Engineering. An instructional program that describes the organization and management of integrated systems of people, materials, and equipment for the purpose of improving production processes.

14.18 Material Engineering. A group of instructional programs (see 14.1801).

14.1801 Material Engineering. An instructional program that describes the structures, reactions, functions, and synthesis of metals, ceramics, plastics, textiles, pulp and paper, wood, and other materials, including the effects of their properties on systems and objects that are constructed from the specified materials.

14.19 Mechanical Engineering. A group of instructional programs (see 14.1901).

14.1901 Mechanical Engineering. An instructional program that describes the design construction, maintenance, and operation of mechanical products and related systems, including production machinery, energy conversion devices, and vehicles.

14.20 Metallurgical Engineering. A group of instructional programs (see 14.2001).

14.2001 Metallurgical Engineering. An instructional program that describes the development and control of processes for extraction of metals from their ores and metal refining, the properties of metals and alloys, and the manufacturing and processing of metals.

14.21 Mining and Mineral Engineering. A group of instructional programs (see 14.2101).

14.2101 Mining and Mineral Engineering. An instructional program that describes the techniques and procedures for locating and appraising mineral deposits, and for designing the equipment and the operation processes for extracting minerals.

14.22 Naval Architecture and Marine Engineering. A group of instructional programs (see 14.2201).

14.2201 Naval Architecture and Marine Engineering. An instructional program that describes the principles and techniques of design, construction, installation, maintenance, and operation of vehicles and equipment operating on or in the water.

14.23 Nuclear Engineering. A group of instructional programs (see 14.2301).

14.2301 Nuclear Engineering. An instructional program that describes the design, development, manufacture, construction, installation, maintenance, and repair of mechanical plants and equipment for the release, control, and utilization of nuclear energy.

14.24 Ocean Engineering. A group of instructional programs (see 14.2401).

14.2401 Ocean Engineering. An instructional program that describes wave action upon sea structures, equipment, and materials, including the development of instrumentation to determine the forces and accelerations of such action.

14.25 Petroleum Engineering. A group of instructional programs (see 14.2501).

14.2501 Petroleum Engineering. An instructional program that describes the processing of recovering and refining crude oil and gas, including the design, development, construction, installation, maintenance, and repair of related physical facilities.

14.26 Surveying and Mapping Sciences. A group of instructional programs that describe the determination and identification of the shape, contour, location, and dimensions of land or water and their features.

14.2601 Surveying and Mapping Sciences. An instructional program that describes the determination and identification of the shape, contour, location, and dimensions of land or water and their features.

14.2602 Cartography. An instructional program that describes the principles and techniques involved in designing, planning, and constructing maps.

14.27 Systems Engineering. A group of instructional programs (see 14.2701).

14.2701 Systems Engineering. An instructional program that describes the interacting, interrelated or interdependent elements forming the related engineering system.

14.28 Textile Engineering. A group of instructional programs (see 14.2801).

14.2801 Textile Engineering. An instructional program that describes the structure, reactions, functions, properties, and synthesis of textiles.

14.99 Engineering, Other. A group of instructional programs in engineering not described above.

14.9999 Engineering, Other. Any instructional program in engineering not described above.

15. Engineering and Engineering-Related Technologies. A summary of groups of instructional programs that prepare individuals to support and assist engineers and other professionals. Programs stress specialized, practical knowledge related to the mathematical, scientific, or technical aspects of engineering and related sciences.

15.01 Architectural Technologies. A group of instructional programs that prepare individuals to support and assist engineers and other professionals. Programs stress specialized, practical knowledge related to the mathematical, scientific, or technical aspects of engineering and related sciences.

15.0101 Architectural Design and Construction Technology. An instructional program that prepares individuals to assist the architect and architectural engineer in planning and designing structures and buildings; testing materials; constructing and inspecting structure; model building and design estimating; utilizing, transporting, and storing construction materials; and dealing with contracts and specifications.

15.0102 Architectural Interior Design Technology. An instructional program that prepares individuals to assist architects in planning and designing interior layouts. Includes instruction in designing architectural structures; analyzing and using various types and colors of floor, wall, and ceiling coverings; windows and door; acoustical materials; functional furnishings; electrical, heating, cooling, and other outlets; and in assessing costs related to design and furnishings.

15.0199 Architectural Technologies, Other. Any instructional program in architectural technologies not described above.

15.02 Civil Technologies. A group of instructional programs that prepare individuals to support and assist civil engineers and urban planners. Programs stress specialized, practical knowledge related to the mathematical, scientific, or technical aspects of civil engineering and urban planning.

15.0201 Civil Technology. An instructional program that prepares individuals to assist a civil engineer in designing, surveying, materials control, testing, and building of various structures. Includes instruction in physical sciences; mathematics; surveying; laying out roadways; preparing plans and specifications for the construction of highways, railroads, buildings, dams, and airports; structural detailing and design testing; construction estimating; and operations management.

15.0202 Drafting and Design Technology. An instructional program that prepares individuals to assist mechanical, electrical and electronic, architectural, chemical, civil, or other engineers in the design and drafting of electrical circuits, machines, structures, weldments, or architectural plans. Includes instruction in the preparation of engineering plans, layouts, and detailed drawings according to conventional projection principles and techniques or as specified; preparation of charts, graphs, or diagrams; model making; and the use of handbook data germane to design and drafting in various engineering fields.

15.0203 Surveying and Mapping Technology. An instructional program that prepares individuals to technically assist civil engineers and urban planners in the determination and description of the shape, contour, location, and dimensions of geographic areas or features.

15.0204 Urban Planning Technology. An instructional program that prepares individuals to work as team members with civil engineers, social engineers, social scientists, and urban-planning professionals. Includes instruction in methods used in urban design and land utilization; methods of demographic study, including population growth, transportation in urban settings, and housing; building and construction codes and regulations; urban traffic management and control; distribution of water and wastewater systems; electrical systems relating to the overall planning for redevelopment of a urban area; urban mapping and engineering drawing; reading architectural or engineering drawings;, methods of urban growth determination and projection; cost determination; analysis and comparison of different types of configurations and the sociological aspects of housing, transportation, recreation, park and living space, employment, and logistics in urban settings.

15.0299 Civil Technologies, Other. Any instructional program in civil technologies not described above.

15.03 Electrical and Electronic Technologies. An group of instructional programs that prepares individuals to work to support and assist electrical and electronic engineers, and other engineers and scientists concerned with the development of lasers. Programs stress specialized, practical knowledge related to the mechanical, mathematical, scientific, or technical aspects of electrical engineering, electronic engineering, and laser development.

15.0301 Computer Technology. An instructional program that prepares individuals to support engineers and scientists in the design, development, and testing of computer and peripheral devices. Includes instruction in electronic circuitry; prototype development and testing; systems design, selection, installation, and testing, solid state and microminiature circuitry to data storage devices, and the preparation of reports and documentation of test results.

15.0302 Electrical Technology. An instructional program that prepares individuals to support electrical engineers in the design, development, and testing of electrical circuits, devices, and systems, for generating electricity and distributing electrical power. Includes instruction in model and prototype development and testing; systems analysis and integration, including design, development of corrective and preventive maintenance techniques; application of engineering data; and the preparation of reports and test results.

15.0303 Electronic Technology. An instructional program that prepares individuals to support electronic engineers and other professionals in the design, development, modification, and testing of electronic circuits, devices, and systems. Includes instruction in practical circuit feasibility; prototype development and testing; systems analysis, including design, selection, installation, calibration, and testing; solid-state and microminiature circuits; and the application of engineering data to specific problems in the electronics field.

15.0304 Laser Electro-Optic Technology. An instructional program that prepares individuals to assist engineers, scientists, or plant managers in the assembly, installation, testing, adjustment, and operation of various types of lasers for various applications. Includes instruction in safety precautions and the optical, physical, and chemical theory and application of each laser device.

15.0399 Electrical and Electronic Technologies, Other. Any instructional program in electrical and electronic technologies not described above.

15.04 Electromechanical Instrumentation and Maintenance Technologies. A group of instructional programs that prepare individuals either to support or assist mechanical and electrical engineers, or to install and service electromechanical equipment. Programs stress specialized, practical knowledge related to the mechanical, mathematical, scientific, or technical aspects of mechanical and electrical engineering, biomedical engineering, computer science, and instrumentation design.

15.0401 Biomedical Equipment Technology. An instructional program that prepares individuals to manufacture, install, calibrate, operate, and maintain sophisticated life-support equipment found in hospitals, medical centers, and research laboratories. Includes instruction in the use of testing and diagnostic instruments; calibrating techniques; potential hazards and safety precautions; and methods of installation, repair, maintenance, and operation of the equipment.

15.0402 Computer Servicing Technology. An instruction program that prepares individuals to install, program, operate, maintain, service, and diagnose operational problems in computer systems arising from mechanical or electrical malfunctions in computer units or systems. Includes instruction in the underlying physical sciences and supporting mathematics of computer design, installation, construction, programming, operation, maintenance, and functional diagnosis, and how to detect, isolate, and correct malfunctions. Programs describe the electrical and electronic circuits and mechanical devices used in computer construction and their combination into systems in individual computer or computing installations, as well as instruments used to detect weaknesses or failures in electrical systems in computers.

15.0403 Electromechanical Technology. An instructional program that prepares individuals to assist mechanical and electrical engineers and other managers in the design, development, and testing of electromechanical devices and systems such as plant automation, automated control systems, servomechanical devices and systems such as plant automation, automated control systems, servomechanisms, vending machines, elevator controls, missile controls, tape-control machines, and auxiliary computer equipment. Includes instruction in assisting with feasibility testing of engineering concepts; systems analysis (including design, selection, testing, and application of engineering data); and the preparation of written reports and test results.

15.0404 Instrumentation Technology. An instruction program that prepares individuals to design, develop prototypes for, test, and evaluate control or measurement devices on systems, and to prepare graphs, written reports, and test results in support of the professional personnel working in the field of instrumentation. Includes instruction in the fields of electricity, electronics, mechanics, pneumatics, and hydraulics as they pertain to the principles of control, recording systems, automated devices, and the calibration of instrumentation units or systems.

15.0405 Robotics Technology. An instructional program that prepares individuals to assemble, program, maintain and repair robots. Includes instruction in the history and development of robots, the types of robots used in industry and their component makeup, computer control systems and robot computer language, and troubleshooting techniques, especially with regard to servomechanisms, microprocessors, and computer operation.

15.0499 Electromechanical Instrumentation and Maintenance Technologies, Other. Any instructional program in electromechanical instrumentation and maintenance technologies not described above.

15.05 Environmental Control Technologies. A group of instructional programs that prepare individuals to assist in controlling either the internal temperature of commercial and industrial buildings, or the levels of toxicity of industrial wastes

15.0501 Air Conditioning, Heating, and Refrigeration Technology. An instructional program that prepares individuals to work in engineering departments or independently as entrepreneurs capable of designing, installing, maintaining, and operating small or medium air conditioning, heating, and refrigeration systems. Instruction prepares individuals to work in a commercial organization performing special tasks relating to design, assembly, installation, servicing, operation, and maintenance of heating or cooling systems, according to the standards of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, Inc. Includes instruction in air conditioning, heating, and refrigeration devices, equipment, techniques, and systems; evaluation of amount of heating, air conditioning, or refrigeration capacity needed to accomplish a particular task; and in the maintenance and operation of a system that meets the requirements of the task.

15.0502 Air Pollution Control Technology. An instructional program that prepares individuals to detect, measure, and control air pollution. Includes instruction in the chemistry of combustion from which the majority of pollution elements in the air are derived; the major sources of air pollution, such as internal combustion engines, power plants, and industrial or home use of fuels; methods of sampling smokestacks; detection and source identification and analysis of air pollutants, both gaseous and particulate; and the construction, use, calibration, and maintenance of automatic samplers, recorders, and other analytical devices.

15.0503 Energy Conservation and Use Technology. An instructional program that prepares individuals to support engineers or work independently to identify and measure quantities of energy used in heating and cooling or operating a facility or industrial process; assess efficiency in the use of energy or the amount lost through wasteful processes or lack of insulation; and prescribe remedial steps to conserve energy within the system. Includes instruction in the utilization and conversion of energy in its various forms; techniques for improving use or preventing loss of energy; and the quantification of the net minimum or optimum energy required in a given system or process.

15.0504 Sanitation Technology. An instructional program that prepares individuals to support sanitarians, and others responsible for health and sanitation factors, by determining the nature and amount of bacteria and chemical contaminants in water, wastewater, and food processing. Includes instruction of sampling, culturing and identifying pathogenic or other organisms; determining the relative amounts of contaminants in food, soil, water, or other materials by taking samples and performing analyses using sophisticated chemical and biological equipment and procedures; and sanitation-related aspects of water and wastewater purification and processing systems and food processing, storage, and service. Programs prepare individuals for the licensure or certification that is required in some States for employment in government sanitation or health-related agencies.

15.0505. Solar Heating and Cooling Technology. An instructional program that prepares individuals to work with heating, cooling, and refrigeration engineers and scientists in research, design, installation, and maintenance for maximum efficiency of solar heating units for space heating, cooling, and water heating for factory, home, or institutional use. Includes instruction in the design and dynamics of solar heat collecting systems; heat collection, storage, and distribution in modern heating and cooling systems; theory, procedures, and measuring devices for air conditioning, heating, and refrigeration systems; and the individual mechanisms and controls used in solar heat collecting units for air conditioning, heating, or refrigeration systems.

15.0506 Water and Wastewater Technology. An instructional program that prepares individuals to process, purify, store, control pollution in, distribute, and dispose of wastewater. Includes instruction in the design, construction, operation, and maintenance of equipment for water or wastewater collection, processing, pollution control, and distribution; operation of machines, devices, and control systems which use sophisticated modern instrumentation; testing of samples of materials at various stages in the process design; hydraulics; liquid collection; liquid-processing equipment; pumping and conveying; sampling and testing, both chemically and biologically; processes of purification, digestion, biological deterioration, and disintegration of wastewater products; plant layout, operation, and safety; and the regulations and standards controlling water or wastewater purification.

15.0599 Environmental Control Technologies, Other. Any instructional program in environmental control technologies not described above.

15.06 Industrial Production Technologies. A group of instructional programs that prepare individuals to supervise industrial processes or to support engineers, scientists, and other professionals who are employed industry. Programs describe the mechanical, scientific, or technical aspects of a variety of industries, including chemical manufacturing, food processing, forest products, marine products, plastics, and textiles.

15.0602 Food Processing Technology. An instructional program that prepares individuals to assist food chemists and food-processing engineers in processing raw foodstuffs into marketable food products by selecting and grading raw materials, and by industrial processes for extracting, converting, drying, freezing, preserving, canning, pickling, smoking, radiation, chemically treating, and packaging products. Includes instruction in the basic sciences and supporting mathematics of chemistry, microbiology, and physics as they relate to food processing, and in the processes, equipment, sanitation, inspection, handling procedures and techniques, process control and scheduling, product storage, shipping, and cost analyses of alternative processes in the industry as applied to specific products and localities.

15.0603 Industrial Technology. An instructional program that prepares individuals to assist an industrial engineer in production and planning; design and installation of integrated systems of materials, equipment, and personnel; and measurement, testing, and management of quality control in the manufacturing, transportation, assembly, installation, and operation of processes and products. Includes instruction in the operation of testing equipment (destructive and nondestructive), measuring devices, specification reading, and design and measurement of levels of tolerance compatible with overall production specifications.

15.0606 Optical Technology. An instruction program that prepares to grind lenses from optical glass or from modern plastic, according to engineering specifications or optometrist prescriptions. Includes instruction in the science of optics, optical glass, and plastics used in optics; optical design and drawings; machinery, materials, and techniques required for production of optical lenses; and in the polishing of lenses or optical elements for mounting in eyeglasses or holding devices.

15.0607 Plastic Technology. An instructional program that prepares individuals to support plastic design engineers, scientists, managers, or entrepreneurs in the application, production, and fabrication of plastic products. Includes instruction in the chemistry and applied engineering sciences related to thermosetting, pressing, forming, molding, and producing of fiberglass or other plastic; drawings for dies, form molds, or plastic packaging for shipment of storage; and hazards associated with production and design.

15.0609 Textile Technology. An instructional program that prepares individuals to assist scientists, engineers, or managers in the textile industry or in related research, development, production, or servicing. Includes instruction in the nature and characteristics of textile fibers; spinning, weaving dyeing, mordantly, fireproofing, and static arresting; testing of fibers for tensile strength, heat resistance, crease recessions, and laundering, equipment and machines used in marking textiles; and textile production, packaging, storage, shipment and uses.

15.0610 Welding Technology. An instructional program that prepares skilled workers at the technician level to understand, perform, and supervise or inspect a wide variety of welding processes. These include gas welding, brazing, flame cutting, metallic arc welding (manual or automatic), metallic gas or inert gas welding of ferrous and nonferrous materials, resistance welding, and fusing of glass and plastics in a welding mode. Includes instruction in the applied physics and metallurgy of the various welding processes, the shielding elements in the welding processes, and the various types of equipment used to accomplish each process. Programs develop an elemental understanding of design for welding fabrication; an understanding of the elements of cost and economics of welding of various types; a knowledge of the methods of non-destructive and destructive inspection of welding and welded products; and an understanding of auxiliary equipment used in the process, such as jigs, fixtures, and annealing equipment related to welding.

15.0699 Industrial Production Technologies, Other. Any instructional program in industrial production technologies not described above.

15.07 Quality Control and Safety Technologies. A group of instructional programs that prepare individuals to support a variety of engineers and industrial managers. Programs describe the mechanical, scientific, or technical aspects of industrial production, occupational health, and quality control.

15.0701 Occupational Safety and Health Technology. An instructional program that prepares individuals to work with safety engineers and managers in analyzing working conditions in places of employment to ensure maximum safety to workers and occupants. Includes instruction in safety engineering principles and science; related Federal, State and local legislation; procedures, practices, techniques, and methods used in analyzing all aspects of working conditions in an employment establishment, including physical, water, atmospheric, and other environmental elements which may constitute hazards; determination of potentially unsafe working practices; chemical contamination of workers through the air they breathe; methods for correcting unsafe conditions or preventing them; cost analysis of various corrective measures for working conditions or practices on the job; capability in reading engineering drawings; and use of orthographic projection practices in drawing, diagramming, or sketching safety devices or plant layouts.

15.0702 Quality Control Technology. An instructional program that prepares to support engineers or managers by utilizing the sciences of measurement and quality control, quality design, production and inspection, testing (both destructive and nondestructive), statistical sampling, and mathematical probability as it relates to quality control in mass-produced items manufactured by modern production procedures and processes. Includes instruction in the intensive study of the physical and related engineering sciences and supporting mathematics related to material testing devices; testing; inspection techniques; organization of systems of quality control; statistical sampling; management of quality in manufacturing, transportation, assembly, installation, and operation; assurance of maximum accuracy or quality control in all phases of manufacturing; and utilization of all components and units in modern sophisticated machine devices of systems. Special study is required to understand the operation of testing equipment (particularly nondestructive equipment), measuring devices, reading of specifications, design and measuring of tolerances to assure that a certain level of quality will be met in producing a component, unit, or system. Includes instruction in the preparation of scientific or technical reports and in the development of interpersonal skills required in the performance of tasks or in the supervision of the work of others.

15.0799 Quality Control and Safety Technologies, Other. Any instructional program in quality control and safety technologies not described above.

15.08 Mechanical and Related Technologies. A group of instructional programs that prepare individuals to support and assist a variety of engineering professionals, including aeronautical, agricultural, automotive, mechanical, electrical and electronic, architectural, chemical, civil, mining, and petroleum engineers. Programs describe the mathematical, mechanical, scientific, and technical aspects of these engineering specialties.

15.0801 Aeronautical Technology. An instructional program that prepares individuals to assist the aeronautical engineer in collecting research data relevant to the operation of aircraft and the design, testing, and development of propulsion, control, and guidance systems of aircraft and aerospace vehicles.

15.0803 Automotive Technology. An instructional program that prepares individuals to support an automotive engineer in diagnosing normal or abnormal operation and in maintaining and repairing automotive equipment. Includes instruction in the installation, maintenance, operation, repair, adjustment, or modification of automobiles, trucks, buses, and light industrial or farm equipment powered by gasoline, diesel, or turbine engines and equipped with electrical, hydraulic, pneumatic, or mechanical controls. Also includes instruction in the use and calibration of diagnostic and testing instruments and equipment.

15.0804 Marine Propulsion Technology. An instructional program that prepares individuals to support propulsion engineers, ship officers, managers of marine units and fleets, or to work as manufacturers' representatives of marine propulsion units. Includes instruction in various marine propulsion units and systems and their related controls; various fuels and fuel systems and problems and hazards involved in their use; power capacity of various units; the basic design, installation, operation and maintenance and servicing of various marine propulsion units and systems; the use and design of cooling systems; operational controls; cost efficiency of various alternative propulsion systems and maintaining operation and service logs.

15.0805 Mechanical Design Technology. An instructional program that prepares individuals to assist a mechanical-design or equipment-systems engineer in designing, detailing, producing, and testing machines, using appropriate available materials, processes, techniques, and facilities. Includes instruction in drafting; strength of materials; manufacturing or fabrication procedures and practices; materiel testing; component inspection; machine or unit operation; evaluation; basic physics and mechanics, and the supporting mathematics; basic mechanisms; hydraulics and pneumatics; quality control and testing; machine design; materials; specification preparation; and technical reporting.

15.0899 Mechanical and Related Technologies, Other. Any instructional program in mechanical and related technologies not described above.

15.09 Mining and Petroleum Technologies. A group of instructional programs that prepare individuals to support and assist mining and petroleum engineers and managers. Programs stress specialized, practical knowledge related to the mechanical, scientific, or technical aspects of mining and petroleum engineering.

15.0901 Coal Mining Technology. An instructional program that prepares individuals to assist mining engineers or managers or to assume responsibility with a degree of independence in various aspects of mining operation. Includes instruction in methods, equipment, processes, techniques, and procedures employed in underground coal mining or in strip mining; coal beneficiating and conditioning for marketing; mapping and planning the exploitation of a coal field; managing for safe mining operations; disposing of mine waste; reclaiming strip-mine areas after coal has been removed; testing and analyzing the quality of coal; measuring the levels of impurities in air in mines and identifying the nature of the impurities; constructing, operating, and maintaining specialized machinery and equipment; and planning for maximum exploitation of deposits of coal by the most economical modern methods.

15.0902 Mining (Excluding Coal) Technology. An instructional program that prepares individuals to work in a supportive role to mining engineers and managers in the development and exploitation of metal or other mineral ore deposits (excluding coal and other fossil fuels). Includes instruction in elementary geology; mechanical drawing and drafting; mining methods, both open pit and underground; surveying as it applies to planning the mining of particular ore body; mining machinery; equipment and methods used in drilling, blasting, conveying, hoisting, crushing, and beneficiating; mine safety; environmental impact; production, storage, and disposal of solid or liquid wastes; and collecting, screening, filtering, drying, processing, storing, and shipping of finished ore.

15.0903 Petroleum Technology. An instructional program that prepares individuals to assist in petroleum production on-shore or off-shore exploring for petroleum fields; seismic testing of promising geological formations; drilling test wells; improving drilling technology; analyzing cores from drilling; logging cores; collecting petroleum from producing wells; delivering oil to holding points or pipelines for transporting to refineries; or capturing gas and retaining it in holding points for marketing. Includes instruction in the methods for increasing productivity of oil fields; seismic exploration; sophisticated scientific and production methods; instrumentation, machinery, equipment, techniques, and processes used in obtaining and refining crude oil into salable products; oil or gas-well control by use of drilling muds or other techniques; charting and diagraming oil fields; oil wells, and pipelines; and designing refineries.

15.0999 Mining and Petroleum Technologies, Other. Any instructional program in mining and petroleum technologies not described above.

15.10 Construction Technology. A group of instructional programs (see 15.1001).

15.1001 Construction Technology. An instructional program that prepares individuals to support contractors and others responsible for constructing buildings by coordinating the work of craft workers and subcontractors, and assisting in surveying, analyzing costs, and troubleshooting. Includes instruction in building codes and engineering requirements.

15.99 Engineering and Engineering-Related Technologies, Other. A group of instructional programs in engineering and engineering-related technologies not described above.

15.9999 Engineering and Engineering-Related Technologies, Other. Any instructional program in engineering and engineering-related technonlogies not described above.

16. Foreign Languages. A summary of groups of instructional programs that describe the structure and use of language that is common or indigenous to people of the same community or nation; the same geographical area, or the same cultural traditions; including such features as sounds, literature, syntax, phonology, morphology, semantics, sentences, prose and verse, as well as the development of skills and attitudes used in communicating and evaluating thoughts and feelings through oral and written language.

16.01 Foreign Languages, Multiple Emphasis. A group of instructional programs (see 16.0101).

16.0101 Foreign Languages, Multiple Emphasis. An instructional program that describes the language, literature, and culture of more than one specific group of people.

16.02 African (Non-Semitic) Languages. A group of instructional programs (see 16.0201).

16.0201 African (Non-Semitic) Languages. An instructional program that describes the language, literature, and culture of non-Semitic African people; languages such as Ibo, Swahili, and Yoruba are included in this category.

16.03 Asiatic Languages. A group of instructional programs that describe the language, literature, and culture of Asiatic peoples; languages such as Cantonese, Mandarin, Japanese, Korean, Malay, and Japanese are included in this category.

16.0301 Chinese. An instructional program that describes the language, literature, and culture of Chinese-speaking peoples; languages such as Cantonese and Mandarin are included in this category.

16.0302 Japanese. An instructional program that describes the language, literature, and culture of Japanese-speaking peoples.

16.0399 Asiatic Languages, Other. Any instructional program in Asiatic languages not described above.

16.04 Balto-Slavic Languages. A group of instructional programs that describe the language, literature, and culture of Baltic and Slavic peoples; languages such as Latvian, Lithuanian, Russian, Polish, Belorussian, Czech, Serbo-Croatian, and Ukranian are included in this category.

16.0402 Russian. An instructional program that describes the language, literature, and culture of Russian-speaking peoples.

16.0403. Languages (Other than Russian). An instructional program that describes the language, literature, and culture of Slavic-speaking (other than Russian-speaking) peoples; languages such as Polish, Belonussian, Czech; Serbo-Croatian and Ukranian are included in this category.

16.0499 Balto-Slavic Languages, Other. Any instructional program in Balto-Slavic languages not described above.

16.05 Germanic Languages. A group of instructional program that describe the language, literature, and culture of people whose native language belongs to the Germanic branch of Indo-European languages; languages such as German, Norwegian, Swedish, Danish, and Yiddish are included in this category.

16.0501 German. An instructional program that describes the language, literature, and culture of German-speaking peoples.

16.0502 Scandinavian Languages. An instructional program that describes the language, literature, and culture of Scandinavian peoples; languages such as Norwegian, Swedish, and Danish are included in this category.

16.0599 Germanic Languages, Other. Any instructional program in Germanic languages not described above.

16.06 Greek. A group of instructional programs that describe the language, literature, and culture of Greek-speaking peoples.

16.0601 Greek (Classical). An instructional program that describes the language, literature, and culture of the ancient Greek world.

16.07 Indic Languages. A group of instructional programs (see 16.0703).

16.0703 Indic Languages. An instructional program that describes the language, literature and culture of people who native language belongs to the Indic branch of Indo-European languages; languages such as Hindi, Sanskrit, Urdu, Bengali, and Panjabi are included in this category.

16.09 Italic Languages. A group of instructional programs that describe the language, literature, and culture of people whose native language belongs to the Italic branch of Indo-European languages; languages such as French, Italian, Latin, Portuguese, and Spanish are included in this category.

16.0901 French. An instructional program that describes the language, literature, and culture of French-speaking peoples.

16.0902 Italian. An instructional program that describes the language, literature, and culture of Italian-speaking peoples.

16.0903 Latin. An instructional program that describes the language and literature of Latin.

16.0904 Portuguese. An instructional program that describes the language, literature, and culture of Portuguese-speaking peoples.

16.0905 Spanish. An instructional program that describes the language, literature, and culture of Spanish-speaking peoples.

16.0999 Italic Language, Other. Any instructional program in Italic languages not described above.

16.10 Native American Languages. A group of instructional programs (see 16.1001).

16.1001 Native American Languages. An instructional program that describes the language, literature, and culture of Native American peoples.

16.11 Semitic Languages. A group of instructional programs that describes the language, literature, and culture of Semitic peoples; languages such as Arabic and Hebrew are included in this category.

16.1101 Arabic. An instructional program that describes the language, literature, and culture of Arabic-speaking peoples.

16.102 Hebrew. An instructional program that describes the language, literature, and culture of Hebrew-speaking peoples.

16.1199 Semitic Languages, Other. Any instructional program in Semitic languages not described above.

16.99 Foreign Languages, Other. A group of instructional programs in foreign languages not described above.

16.9999 Foreign Languages, Other. Any instructional program in foreign languages not described above.

17. Allied Health. A summary of groups of instructional programs that prepare individuals to assist qualified health professionals in providing diagnostic, therapeutic, preventive, restorative, and rehabilitative services to patients in health care facilities, the home, and the community.

17.01 Dental Services. A group of instructional programs that prepare individuals to provide supportive services to the dental profession, including performing dental prophylactic treatments, instructing persons in the care of teeth and mouth, and producing dentures and related appliances.

17.0101 Dental Assisting. An instructional program that prepares individuals to assist a dentist at the chairside in a dental operation, to perform reception functions, clerical functions, and selected dental laboratory procedures.

17.0102 Dental Hygiene. An instructional program that prepares individuals to provide chairside services to patients (such as performing complete oral prophylaxis and applying medication) and to provide dental health education services to individuals and community health programs, under the supervision of a dentist.

17.0103 Dental Laboratory Technology. An instructional program that prepares individuals to make and repair restorative appliances required for the oral health of the patient, as prescribed by a dentist.

17.0199 Dental Services, Other. Any instructional program in dental services not described above.

17.02 Diagnostic and Treatment Services. A group of instructional programs that prepare individuals to use equipment and medical materials for diagnostic and therapeutic purposes by learning to apply roentgen rays and radioactive substances; prepare and administer radioisotopes; operate electrocardiograph, electroencephalograph, respiratory, or dialysis equipment; provide technical assistance before, during, and after an operation; or render medical emergency treatment in a variety of situations that demand immediate care, such as heart attacks, childbirth, poisons, burns, and shock.

17.0201 Cardiovascular Technology. An instructional program that prepares individuals to perform a wide range of tests related to the functions and therapeutic care of the heart-lung system, operate and maintain a heart-lung machine for extra-corporeal circulation, assist in cardiac catheterization and cardiac resuscitation, and assist in the post-operative monitoring, care, and treatment of heart-lung patients.

17.0202 Dialysis Technology. An instructional program that prepares individuals to provide dialysis and intensive care to patients in a renal service, including cardiac monitoring, respiratory therapy, isolation procedures, and adjustment and maintenance of dialysis equipment.

17.0203 Electrocardiograph Technology. An instructional program that prepares individuals to operate and maintain an electrocardiograph machine to record electromotive variations in the action of the patient's heart muscle. Includes instruction in making minor repairs.

17.0204 Electroencephalograph Technology. An instructional program that prepares individuals to operate and maintain the electroencephalograph to measure impulse frequencies and differences in electrical potential between the various areas of the brain to obtain data for the physician to use in diagnosing brain disorders. Includes instruction in making minor repairs.

17.0205 Emergency Medical Technology - Ambulance. An instructional program that prepares individuals to function at the emergency level to treat various cardiopulmonary problems, using cardiac resuscitation and other emergency equipment; airway, fracture, and hemorrhage management; emergency childbirth; and special care of patients exposed to heat, cold, radiation, or contagious disease. Includes instruction in techniques and application of intravenous fluid therapy, pharmacology, and anesthetics.

17.0206 Emergency Medical Technology - Paramedic. An instructional program that prepares individuals to provide pre-hospital emergency medical care to patients of all ages. Includes knowledge about the acute, critical differences in physiology, pathophysiology, or clinical symptoms so that appropriate emergency assessment and treatment can be provided and the necessary information communicated to a responsible physician.

17.0207 Medical Radiation Dosimetry. An instructional program that prepares individuals to calculate radiation dosage in the treatment of malignant disease and plan the direction of radiation to its target in the safest way.

17.0208 Nuclear Medical Technology. An instructional program that prepares individuals to prepare and administer radioactive isotopes and to measure glandular and other bodily activity in therapeutic, diagnostic, and tracer studies, using a variety of equipment.

17.0209 Radiologic (Medical) Technology. An instructional program that prepares individuals to apply roentgen rays and radioactive substances to patients for diagnostic and therapeutic purposes, under the supervision of a radiologist. Includes instruction in anatomy, physiology, radiographic techniques, radiation protection, equipment maintenance, and film processing and darkroom techniques.

17.0210 Respiratory Therapy Technology. An instructional program that prepares individuals to operate and maintain equipment used in supportive respiratory functions (including the administration of oxygen and other therapeutic gases and mist inhalations) as directed by a physician, to respond to emergency situations and to provide treatment to patients with severe respiratory disorders which require intensive care. Includes instruction in making minor repairs.

17.0211 Surgical Technology. An instructional program that prepares individuals to serve as general technical assistants before, during, and after operations. Includes instruction in pre-operation patient and surgical team preparation, supply inventory maintenance, and sterilization and cleaning of equipment and operating rooms.

17.0212 Diagnostic Medical Sonography. An instructional program that prepares individuals to use acoustic energy for diagnosis, research, and therapy; operate ultrasound equipment to obtain diagnostic result; evaluate results for quality of technique; and in emergency situations, make interim reports to medical staff.

17.0299 Diagnostic and Treatment Services, Other. Any instructional program in diagnostic and treatment services not described above.

17.03 Medical Laboratory Technologies. A group of instructional programs that prepare individuals to carry out technical functions to obtain data for use in diagnosis, treatment, and control of diseases, under the supervision of medical specialists. Includes instruction in the use of technical equipment and the administration of medical and/or chemical agents.

17.0301 Blood Bank Technology. An instructional program that prepares individuals to work under the direction of a pathologist, physician, or laboratory director to collect, classify, store, and process blood, including separation of components from whole blood detection and identification of antibodies in patient and donor bloods and selection and delivery of suitable blood for transfusion.

17.0302 Chemistry Technology. An instructional program that prepares individuals to work under the supervision of a pathologist, physician, or qualified scientist in performing qualitative and quantitative chemical analyses of body fluids and exudates, utilizing quantitative equipment and wide range of laboratory instruments, to provide information for diagnosing and treating disease.

17.0303 Clinical Animal Technology. An instructional program that prepares individuals to provide care and treatment to laboratory animals in hospitals, veterinary clinics, and research laboratories; and to perform tests and procedures used in research and diagnose, as prescribed and supervised by pathologists or other qualified research scientists.

17.0304 Clinical Laboratory Aide. An instructional program that prepares individuals to perform simple tasks involved in maintaining cleanliness and order in the clinical laboratory. Includes instruction in sterilization of equipment, maintaining supplies, messenger service, and related duties.

17.0305 Clinical Laboratory Assisting. An instructional program that prepares individuals to perform routine clinical laboratory procedures under the supervision of medical laboratory technicians, pathologists, or other physicians.

17.0306 Cytotechnology. An instructional program that prepares individuals to stain, mount, and screen slides of cells of the human body for determination of abnormalities such as exfoliated cells, under the supervision of a doctor.

17.0307 Hematology Technology. An instructional program that prepares individuals to work in a hospital setting under the supervision of a hematologist or laboratory director, in performing quantitative, qualitative, and coagulation tests on cellular and plasma components of blood for use in the diagnosis and treatment of disease.

17.0308 Histologic Technology. An instructional program that prepares individuals to prepare, section, and stain tissue for microscopic study by a pathologist or other clinical scientist.

17.0309 Medical Laboratory Technology. An instructional program that prepares individuals to perform bacteriological, biological, and chemical tests to provide data for diagnosis and treatment of disease, under the supervision of pathologists.

17.0310 Medical Technology. An instructional program that prepares individuals as a highly skilled laboratory scientist with a strong generalist orientation and an ability to perform complex and specialized procedures in all major areas of the clinical laboratory. The medical technologist is responsible for complex analysis requiring the exercise of individual judgment and must be able to relate findings to the presence or absence of disease. May supervise and/or teach laboratory personnel.

17.0311 Microbiology Technology. An instructional program that prepares individuals to work with a minimum of supervision by a pathologist, physician, or laboratory director, in performing bacteriological, viral, parasitological, immunologic, and serologic procedures in a clinical laboratory setting.

17.0399 Medical Laboratory Technologies, Other. Any instructional program in medical laboratory technologies not described above.

17.04 Mental Health/Human Services. A group of instructional programs that prepare individuals to assist nursing and mental health personnel in the care and treatment of the mentally ill, aged, drug addicted, and physically handicapped. Includes instruction in new patterns of living and administering prescribed medication.

17.0401 Alcohol/Drug Abuse Speciality. An instructional program that prepares individuals to advise and assist people in their efforts to overcome personal, family, and social problems that are manifested in alcoholism and drug addiction.

17.0402 Community Health Work. An instructional program that prepares individuals to serve as liaison between professional health workers and the recipients of health services in the community. Includes instruction in the basic understanding of biology, communicable diseases, environmental health, personal hygiene, care of infants, medications, and family and community services

17.0404 Home Health Aide. An instructional program that prepares individuals to assist elderly, convalescent, or handicapped patients in their homes by providing for physical, mental, emotional, and/or social health-care needs, under the supervision of a registered nurse or physician.

...... Medical Social Work (see 44.0702).

17.0405 Mental Health/Human Services Assisting. An instructional program that prepares individuals to perform routine tasks related to the care, treatment, and rehabilitative activities for the aged, chemically dependent, mentally ill, or mentally handicapped, as supervised by a physician in a hospital or mental health clinic.

17.0406 Mental Health/Human Services Technology. An instructional program that prepares individuals to provide and/or assist in treatment, care, and rehabilitative activities for clients who are aged, mentally ill, mentally or physically handicapped, or chemically dependent, under the supervision of a physician. Includes instruction in new patterns of living and administering medications.

17.0407 Rehabilitation Counseling. An instructional program that prepares individuals to help disabled individuals become aware of and secure rehabilitation services designed to fit the disabled person for gainful employment, assist in job placement, and check on job satisfaction after employment.

17.0408 Therapeutic Child Care Work. An instructional program that prepares individuals under supervision, to implement activity and training programs which provide a preventive and therapeutic environment for mentally ill and emotionally disturbed children and adolescents. Trains children in self-help skills through intensive group sessions involving structured daily activities and reinforcement of other therapeutic experiences; records, evaluates, and reports progress of patients.

17.0409 Population and Family Planning. An instructional program that describes the principles and procedures involved in controlling population and determining family size by the appropriate use of contraceptive techniques.

17.0410 Sign Language Interpreting. An instructional program that prepares individuals to become fluent in the use of the American sign language and skilled in language interpreting procedures. Includes instruction in English, in the nature and needs of the hearing impaired as well as in the resources available for hearing impaired persons, and in handling linguistic and social requirements of a variety of settings, e.g., artistic, educational, legal, medical, religious.

17.0499 Mental Health/Human Services, Other. Any instructional program in mental health/human services not described above.

17.05 Miscellaneous Allied Health Services. A group of instructional programs that prepare individuals to assist specialists in the health field in providing support functions in such areas as pharmaceuticals, central supply, medical records, and the admissions/discharge of patients.

17.0502 Central Supply Technology. An instructional program that prepares individuals to adjust, clean, sterilize, and assemble hospital equipment, supplies, and instruments according to prescribed procedures and techniques. Includes instruction in inspection, evaluation, and purchasing of equipment and materials and in the distribution and inventory of equipment supplies.

17.0503 Medical Assisting. An instructional program that prepares individuals to assist a physician by performing functions related to both business administration and clinical duties of a medical office. Business aspects of instruction cover insurance, accounts, reports, medical records, and medical transcription. Clinical aspects of study include preparation of the patient for examination, assessing vital signs, assisting with examination and treatment, routine laboratory procedures, and use of the electrocardiograph machine.

17.0504 Medical Illustrating. An instructional program that prepares individuals to demonstrate medical facts by the creation of illustrations, models, and teaching films; serves as a consultant, advisor, and administrator in the field of medical illustration.

17.0505 Medical Office Management. An instructional program that prepares individuals to manage the administration and business aspects of a medical practice or group medical practices.

17.0506 Medical Records Technology. An instructional program that prepares individuals to develop statistical reports, code diseases and operations, and maintain indexes according to accepted procedures; take records to court; handle requests for medical information; record minutes of medical staff committee meetings; and supervise filing areas and activities of medical records clerks.

17.0507 Pharmacy Assisting. An instructional program that prepares individuals to assist the pharmacist in performing routine duties related to maintaining and dispensing pharmaceutical supplies and medications, under supervision of a registered pharmacist.

17.0508 Physician Assisting. An instructional program that prepares individuals to perform physician-delegate functions in the areas of general practice, including family medicine, internal medicine, obstetrics, and emergency medicine, or in specific areas of patient care, e.g., urology, surgery, pathology, orthopedics, pediatrics.

17.0510 Podiatric Assisting. An instructional program that prepares individuals to support the podiatrist in serving patients by preparing them for treatment, sterilizing the instruments, performing general office duties, and assisting the podiatrist in preparing dressings, administering treatments, and developing x-rays

17.0512 Veterinarian Assisting. An instructional program that prepares individuals to assist a veterinary doctor in providing care and treatment to animals in a veterinary hospital or clinic. Includes instruction in preparing the animal for examination, assessing vital signs, assisting with examination and treatment, sterilizing equipment, performing routine laboratory procedures, and giving injections and other medications. Also includes maintaining medical and business records, and charting and scheduling activities.

17.0513 Health Unit Coordinating. An instructional program that prepares individuals to perform such duties as answering the telephone, relaying messages, receiving and directing visitors, transcribing orders, and preparing requisition forms in the nursing unit of a hospital or other health care facility, under the supervision of a head nurse.

17.0514 Chiropractic Assisting. An instructional program that prepares individuals to support the chiropractor by assisting chiropractors during physical examination of patients; by giving specified treatments such as diathermy, galvanics, or hydrotherapy; by keeping patients' records; and by performing a variety of office duties.

17.0599 Miscellaneous Allied Health Services, Other. An instructional program in miscellaneous allied health services not described above.

17.06 **Nursing-Related Services.** A group of instructional programs that prepare individuals to work under the supervision of a physician, nurse supervisor, or other qualified nursing staff member in providing nursing care to patients in hospitals, sanitariums, clinics, private homes, or other places by administering medications and treatments, assisting during treatment and examination of patients, or performing related auxiliary services.

17.0601 Geriatric Aide. An instructional program that prepares individuals to perform tasks involved in providing nursing and personal care to elderly patients under the supervision of qualified nursing staff members. Emphasis is on the maintenance of daily living activities of these patients.

17.0602 Nursing Assisting. An instructional program that prepares individuals to perform routine tasks under the supervision of a registered or licensed practical nurse, in the provision of personal care to individuals who are receiving nursing care.

17.0605 Practical Nursing. An instructional program that prepares individuals to assist in providing general nursing care under the direction of a registered nurse, physician, or dentist.

17.0606 Health Unit Management. An instructional program that prepares individuals to supervise and coordinate administrative management functions for one or more patient care units in a health-care facility, under the supervision of a nursing service director or administrator.

17.0699 Nursing-Related Services, Other. An instructional program in nursing-related services not described above.

17.07 Ophthalmic Services. A group of instructional programs that prepare individuals to assist an ophthalmologist or optometrist in identifying vision defects, performing tests, administering treatment preliminary to examination or surgery, preparing and fitting eyeglasses or contact lenses, and directing corrective eye exercises.

17.0701 Ophthalmic Dispensing. An instructional program that prepares individuals to adapt and fit corrective eyewear as prescribed by the ophthalmologist or optometrist.

17.0705 Optometric Technology. An instructional program that prepares individuals to perform a variety of vision care procedures or to specialize in a particular area of vision care, such as fitting of contact lenses or visual training, under the supervision of a physician or optometrist.

17.0799 Ophthalmic Services, Other. An instructional program in ophthalmic services not described above.

17.08 Rehabilitation Service. A group of instructional programs that prepare individuals to apply the principles and techniques of art to the rehabilitation of physically and mentally ill patients.

17.0801 Art Therapy. An instructional program that prepares individuals to apply the principles and techniques of art to the rehabilitation of physically and mentally ill patients.

17.0802 Corrective Therapy. An instructional program that prepares individuals to provide medically prescribed programs of therapeutic exercise to physically and mentally ill patients to prevent muscular deconditioning resulting from inactivity and to attain resocialization and specific psychiatric objectives.

17.0803 Dance Therapy. An instructional program that prepares individuals to apply the principles and techniques of dance to the rehabilitation of physically and mentally ill patients.

17.0804 Exercise Physiology. An instructional program that prepares individuals to work with clinicians in hospitals with rehabilitation programs to provide exercise stress testing and cardiovascular rehabilitation for patients.

17.0806 Music Therapy. An instructional program that prepares individuals to use individual and group musical activities with physically and mentally ill patients to accomplish the therapeutic aims, to create an environment conducive to treatment, or to influence behavior.

17.0807 Occupational Therapy. An instructional program that prepares individuals to use the principles and techniques of providing therapy that offers mental diversion for the patient, frequently serves to exercise an affected part of the body, and gives vocational training that would enable the patient to enter the work force.

17.0808 Occupational Therapy Assisting. An instructional program that prepares individuals to assist an occupational therapist in implementing the plan of therapy for a patient prescribed by a physician.

17.0809 Occupational Therapy Aide. An instructional program that prepares individuals to prepare, collect, and distribute supplies and equipment; keep records; make requisitions; and assist individual patients as directed by the occupational therapist in an occupational therapy unit.

17.0811 Orthotics/Prosthetics. An instructional program that prepares individuals to write specifications for, make, fit, and repair braces and appliances and/or artificial limbs following the prescription of physicians.

17.0812 Orthopedic Assisting. An instructional program that prepares individuals to assist a physician by applying, adjusting, and removing casts; assembling traction apparatus; fitting strappings and splints for orthopedic patients; assembling exercise frames; and adjusting crutches and canes to fit patients. Training may include instructing patients with casts, braces, and crutches in walking and in care of the devices.

17.0813 Physical Therapy. An instructional program that prepares individuals to use the principles and techniques of treating disease, bodily weakness, or physical defects by physical remedies, including massage and gymnastics.

17.0814 Physical Therapy Aide. An instructional program that prepares individuals to assist a physical therapist by cleaning and setting up equipment, assisting in lifting and moving patients, maintaining cleanliness and order in the treatment areas, ordering and storing supplies, keeping records, and escorting patients between nursing units and therapy units.

17.0815 Physical Therapy Assisting. An instructional program that prepares individuals to assist a physical therapist in implementing the plan of therapy for a patient prescribed by a physician.

17.0816 Recreational Therapy. An instructional program that prepares individuals to plan, organize, and direct medically approved recreation programs such as sports, trips, dramatics, arts and crafts, either to help clients recover from illness or in coping with temporary or permanent disability.

17.0817 Recreational Therapy Assisting. An instructional program that prepares individuals to assist the recreational therapist in conducting medically approved recreation programs such as sports, trips, dramatics, and arts and crafts.

17.0818 Respiratory Therapy. An instructional program that prepares individuals to administer respiratory care under the direction of a physician, evaluating the patient's progress, and making recommendations for respiratory therapy. Includes instruction in ventilatory therapy, cardio-respiratory rehabilitation, microenvironmental control, and diagnostic testing of the respiratory system (inhalation therapist).

17.0819 Respiratory Therapy Assisting. An instructional program that prepares individuals to assist a respiratory therapist in implementing the plan of therapy for a patient prescribed by a physician.

17.0820 Speech/Hearing Therapy Aide. An instructional program that prepares individuals to assist in testing, evaluating, and treating the problems of people with speech and hearing difficulties.

17.0822 Recreational Therapy Aide. An instructional program that prepares individuals to assist in providing recreational activities to patients by collecting, setting up, ordering and storing equipment and supplies, maintaining records; escorting patients between nursing units and therapy centers; and maintaining cleanliness and order in treatment areas.

17.0899 Rehabilitation Services, Other. An instructional program in rehabilitation services not described above.

17.99 Allied Health, Other. A group of instructional programs in allied health not described above.

17.9999 Allied Health, Other . Any instructional program in allied health not described above.

18. Health Sciences. A summary of groups of instructional programs that describe the restoration or preservation of health through the use of drugs, surgical operations, manipulations, or other curative or remedial methods.

18.01 Audiology and Speech Pathology. A group of instructional programs that describe the therapeutic techniques for treating hearing and speech disorders.

18.0101 Audiology. An instructional program that describes the principles and techniques of providing therapy that restores or partially restores impaired hearing.

18.0102 Speech Pathology. An instructional program that describes the nature and treatment of hearing and speech disorders.

18.0103 Speech-Language Pathology/Audiology. An instructional program that describes the nature and treatment of hearing and speech disorders, including the principles and techniques of providing therapy that restores or partially restores normal functioning.

18.0199 Audiology and Speech Pathology, Other. Any instructional program in audiology and speech pathology not described above.

18.02 Basic Clinical Health Sciences. A group of instructional programs that describe the bodily structures and functions of humans, the principles and techniques of identifying and classifying diseases which affect them, and the foundation of scientific knowledge that is essential to the restoration and preservation of health.

18.0201 Clinical Anatomy. An instructional program that describes the structure and parts of the human body, including the bones, tissues, and organs, and their relationship to the restoration and preservation of good health.

18.0202 Clinical Biochemistry. An instructional program that describes the nature and chemical composition of the substances that make up the human body, the changes in these substances, and the energy associated with those changes.

18.0203 Clinical Microbiology. An instructional program that describes the nature and properties of harmful microorganisms and of the disease processes they induce in humans.

18.0204 Clinical Pathology. An instructional program that describes the cause and effect of diseases with emphasis on the structural and functional changes which develop during the disease process, and the systematic methods of detecting these changes.

18.0205 Clinical Physiology. An instructional program that describes living organisms or their parts, and their relationship to the restoration and preservation of good health.

18.0206 Clinical Toxicology. An instructional program that describes the nature and extent of the injurious response to the ingestion of chemical compounds and the determination of safe levels of exposure of ingestion in humans and other species.

18.0299 Basic Clinical Health Sciences, Other. Any instructional program in basic clinical health sciences not described above.

18.03 Chiropractic. A group of instructional programs (see 18.0301).

18.0301 Chiropractic. An instructional program that describes the principles and techniques for relieving disorders believed due to abnormal functioning of the nervous system by manipulation and treatment of structures of the body, especially those of the spinal column.

18.04 Dentistry. A group of instructional programs that describe the prevention, diagnosis, and treatment of diseases of the teeth and gums and related parts, including the replacement of missing teeth. Includes instruction in the principles and procedures associated with an established, specialized field of dental science.

18.0401 Dentistry, General. An instructional program that describes the prevention, diagnosis, and treatment of diseases of the teeth and gums and related parts, including the replacement of missing teeth.

18.0402 Dental Public Health. An instructional program that describes the formulation and delivery of public preventive and curative dental health services.

18.0403 Endodontics. An instructional program that describes the etiology, diagnosis, prevention, and treatment of conditions that affect the dental and other periodontal tissues, including pulp canal therapy and root canal therapy.

18.0404 Oral/Maxial Facial Surgery. An instructional program that describes the principles and techniques of performing restorative surgery to the area of the jaws and face and treating diseases, injuries, or deformities of the jaws and associated structures by manual manipulation or by using instruments and appliances.

18.0405 Oral Pathology. An instructional program that describes the functional and structural changes and diseases that affect the area of the mouth.

18.0406 Orthodontics. An instructional program that describes the principles and techniques involved in the prevention and correction of dental and oral anomalies.

18.0407 Pedodontics. An instructional program that describes the principles and techniques of diagnosing and treating the dental and mouth conditions of young children.

18.0408 Periodontics. An instructional program that describes the nature and treatment of diseases which affect the mucous membranes and other structures which surround and support the teeth.

18.0409 Prosthodontics. An instructional program that describes the principles and techniques of constructing artificial devices, and the restoration and maintenance of oral function by the replacement of missing teeth and other oral structures with such artificial devices.

18.0499 Dentistry, Other. Any instructional program in dentistry not described above.

18.07 Health Services Administration. A group of instructional programs that describe administering some aspect of the health care delivery system.

18.0701 Health Services Administration. An instructional program that describes the principles and procedures of planning, organizing, and controlling a hospital or health care facility.

18.0702 Health Care Planning. An instructional program that describes the processes involved in the development of alternative ways of achieving the health goals and expectations of society, including the identification of consequences of each alternative for the purpose of guiding decision makers in their deliberations.

18.0703 Medical Records Administration. An instructional program that describes the administration of all institutional medical records.

18.0799 Health Services Administration, Other. Any instructional program in health sciences administration not described above.

18.09 Medical Laboratory. A group of instructional programs (see 18.0901).

18.0901 Medical Laboratory. An instructional program that describes the principles and practices of clinical laboratory procedures.

18.10 Medicine. A group of instructional programs that describe the principles and procedures used in the observation, diagnosis, care, and treatment of illness, disease, injury, deformity, or other anomalies in humans. Includes instruction in the principles and procedures associated with an established, specialized field of medicine.

18.1001 Medicine, General. An instructional program that describes the principles and procedures used in the observation, diagnosis, care and treatment of illness, disease, injury, deformity, or other anomalies in humans.

18.1002 Allergies and Endomology. An instructional program that describes the diagnosis, care, and treatment of the condition of hypersensitivity of the body to specific substances that results in various type of distressful reactions.

18.1003 Anesthesiology. An instructional program that describes the principles and practices of administering substances that produce general or local insensibility to pain and other sensations.

18.1004 Colon and Rectal Surgery. An instructional program that describes the principles and techniques of treating diseases, injuries, or deformities of the colon and rectum and adjacent areas by manual manipulation or by using instruments and appliances.

18.1005 Dermatology. An instructional program that describes the skin, its structures, functions, diseases, and the treatment of skin diseases.

18.1006 Emergency Medicine. An instructional program that describes the methods, procedures, and techniques of providing health care services to persons who need emergency treatment, and may not be housed in a health care facility.

18.1007 Family Practice. An instructional program that describes the prevention, diagnosis, and treatment of diseases and injuries that commonly occur in the general population.

18.1008 Geriatrics. An instructional program that describes the methods, procedures, and techniques of providing health care to the aged, and for their characteristic afflictions.

18.1009 Immunology. An instructional program that describes the phenomena of immunity from disease, the production of such immunity in humans, induced sensitivity, and allergy.

18.1010 Internal Medicine. An instructional program that describes the principles and procedures involved in the diagnosis and nonsurgical treatment of diseases of the body.

18.1011 Neurological Surgery. An instructional program that describes the principles and techniques of treating diseases, injuries, or deformities of the nervous system by manual manipulation or by using instruments and appliances.

18.1012 Nuclear Medicine. An instructional program that describes the principles and techniques of medicine that deal with the diagnosis and treatment of illnesses and injuries that are peculiar to atomic energy devices and installations.

18.1013 Obstetrics and Gynecology. An instructional program that describes the nature and treatment of diseases of women, especially those affecting the reproductive system and the process of childbirth, and of the care and treatment of women in childbirth and during the period before and after delivery.

18.1014 Ophthalmology. An instructional program that describes the anatomy, physiology, diseases and disorders, and care and treatment of the eye.

18.1015 Orthodontic Surgery. An instructional program that describes the principles and techniques involved in the prevention and correction of dental and oral anomalies by surgical procedures.

18.1016 Orthopedic. An instructional program that describes the principles and techniques of correcting or curing deformities and diseases of the spine, bones, joints, muscles, or other parts of the skeletal system.

18.1017 Otorhinolaryngology/Otolaryngology. An instructional program that describes the anatomy, physiology, disorders, diseases, and care and treatment of the ear, the nose, and the throat.

18.1018 Pathology. An instructional program that describes the principles and techniques involved in diagnosing, from body tissue, fluids, secretions, and other specimens, the presence and stage of a disease.

18.1019 Pediatrics. An instructional program that describes the principles and techniques associated with the medical and hygienic care of children and the diagnosis and treatment of children's diseases.

18.1020 Physical Medicine and Rehabilitation. An instructional program that describes the principles and techniques of medicine which deal with the diagnosis, treatment, and prevention of disease with the aid of physical agents, such as light, heat, cold, water, and electricity, or with mechanical apparatus.

18.1021 Plastic Surgery. An instructional program that describes the principles and techniques of repairing or replacing malformed, injured, or lost organs or tissue using surgical methods.

18.1022 Preventive Medicine. An instructional program that describes the principles and techniques of medicine which deal with the promotion of physical and mental health, the prevention of disease, and the prolongation of life, as opposed to the mere treatment of existing disease.

18.1023 Psychiatry. An instructional program that describes the diagnosis, treatment, and prevention of disorders of the mind.

18.1024 Neurology. An instructional program that describes the structure, function, disorders, diseases, and care and treatment of the nervous system.

18.1025 Radiology. An instructional program that describes the principles and techniques of using roentgen rays and radioactive substances for diagnostic and therapeutic purposes.

18.1026 Surgery. An instructional program that describes the principles and techniques of treating diseases, injuries, or deformities by manual operation and manipulation or by using instruments and appliances.

18.1027 Thoracic Surgery. An instructional program that describes the principles and techniques of treating diseases, injuries, or deformities of the region of the chest by manual manipulation or by using instruments and appliances.

18.1028 Urology. An instructional program that describes the anatomy, physiology, disorders, diseases, and care and treatment of the genitourinary tract.

18.1029 Hematology. An instructional program that describes the nature, functions, and diseases of blood and blood-forming organs and tissues in animals and humans.

18.1030 Sports Medicine. An instructional program that describes athletic injuries and the techniques and procedures for treating them with special emphasis on care and rehabilitation.

18.1099 Medicine, Other. Any instructional program in medicine not described above.

18.11 Nursing. A group of instructional programs that describe the techniques and procedures for providing care for sick, disabled, infirm, or other individuals, including the administering of medications and treatments, assisting a physician during treatments and examinations, and planning education for health maintenance.

18.1101 Nursing, General. An instructional program that generally describes the techniques and procedures for providing care for sick, disabled, infirm, or other individuals, including the administration of medication and treatments, assisting a physician during treatments and examinations, and planning education for health maintenance.

18.1102 Anesthetist. An instructional program that describes the techniques and procedures for administering anesthetics.

18.1103 Maternal/Child Health. An instructional program that describes the techniques and procedures for providing pre-natal care to pregnant women and post-natal care to mothers and their infants.

18.1104 Medical Surgical. An instructional program that describes the techniques and procedures for providing care to patients in clinical and surgical settings.

18.1105 Nursing Administration. An instructional program that describes the techniques and procedures for managing nursing personnel and services in health care delivery agencies.

18.1106 Psychiatric/Mental Health. An instructional program that describes the techniques and procedures for providing care to mentally ill patients.

18.1107 Public Health (Nursing). An instructional program that describes the techniques and procedures for providing preventive and curative nursing services.

18.1199 Nursing, Other. An instructional program in nursing not described above.

18.12 Optometry. A group of instructional programs (see 18.1201).

18.1201 Optometry. An instructional program that describes the principles and techniques for testing, determining defects, and prescribing corrective means for decreasing deficiencies in an individual's vision.

18.13 Osteopathic Medicine. A group of instructional programs (see 18.1301).

18.1301 Osteopathic Medicine. An instructional program that describes the system of therapy utilizing accepted physical, medical, and surgical methods, of diagnosis and therapy, and emphasizing the importance of normal body mechanics and manipulation methods of detecting and correcting faulty body structure.

18.14 Pharmacy. A group of instructional programs (see 18.1401).

18.1401 Pharmacy. An instructional program that describes the principles and procedures of procuring, preparing, compounding, recommending, administering, and dispensing drugs, medicines, and devices used in the diagnosis, treatment, or prevention of disease.

18.15 Podiatry. A group of instructional programs (see 18.1501).

18.1501 Podiatry. An instructional program that describes the anatomy, physiology, disorders, diseases, and care and treatment of the feet.

18.17 Pre-Dentistry. A group of instructional programs (see 18.1701).

18.1701 Pre-Dentistry. An instructional program that prepares individuals with the express purpose for entering into a program in dentistry.

18.18 Pre-Medicine. A group of instructional programs (see 18.1801).

18.1801 Pre-Medicine. An instructional program that prepares individuals with the express purpose for entering into a program in medicine.

18.19 Pre-Pharmacy. A group of instructional programs (see 18.1901).

18.1901 Pre-Pharmacy. An instructional program that prepares individuals with the express purpose for entering into a program in pharmacy.

18.20 Pre-Veterinary. A group of instructional programs (see 18.2001).

18.2001 Pre-Veterinary. An instructional program that prepares individuals with the express purpose for entering into a program in veterinary medicine.

18.22 Public Health. A group of instructional programs that describe laboratory procedures; program planning, implementation, management, and evaluation; and planning, organizing, and directing health education programs.

18.2201 Public Health Laboratory Science. An instructional program that describes the principles and practices of public health laboratory procedures.

18.2202 Epidemiology. An instructional program that describes the nature and treatment of epidemic diseases which affect large numbers of people at the same time, spreading from person to person in localities where it was not prevalent previously.

18.2203 Public Health Education. An instructional program that describes the process of influencing health-related social and behavior change in human populations.

18.2204 Public Health Practice and Management. An instructional program that describes the planning, implementation, and evaluation of community-based health care programs and systems.

18.2299 Public Health, Other. Any instructional program in public health not described above.

18.24 Veterinary Medicine. A group of instructional programs (see 18.2401).

18.2401 Veterinary Medicine. An instructional program that describes the nature, prevention, and treatment of animal diseases and the medical and surgical treatment of animals.

18.99 Health Sciences, Other. A group of instructional programs in health sciences not described above.

18.9999 Health Sciences, Other. Any instructional program in health sciences not described above.

19. Home Economics. A summary of groups of instructional programs that describe the relationship between the physical, social, emotional, and intellectual environment in and of the home and family, and the development of individuals. Includes instruction in the natural and social sciences and humanities in the development of attitudes, knowledge, and ability pertaining to clothing and textiles, consumer education, food and nutrition, home management, housing, human development and family studies, and institutional management.

19.01 Home Economics, General. A group of instructional programs (see 19.0101)

19.0101 Home Economics, General. An instructional program that generally describes the understanding of the relationship between the physical, social, emotional, and intellectual environment and the well being of individuals and families.

19.02 Business Home Economics. A group of instructional programs (see 19.0201).

19.0201 Business Home Economics. An instructional program that describes the relationship between human and material resources, such as time, energy, money, talent, and management of the home.

19.03 Family and Community Services. A group of instructional programs (see 19.0301).

19.0301 Family and Community Services. An instructional program that describes the cultural, social, and technological influences on families in changing societies, including family programs and support services that are available.

19.04 Family/Consumer Resource Management. A group of instructional programs that describe the concepts, skills, and processes through which decisions about the use of resources are directed to enhance individual and family well being; also involved is an understanding of goal setting and management functions and processes through which the household and financial activities of individuals and families are accomplished.

19.0401 Family/Consumer Resource Management, General. An instructional program that generally describes the concepts, skills, and processes through which decisions about the use of resources are directed toward goal achievement in home and family living; also involved is an understanding of goal formulation and of management functions and processes through which the household and financial activities of the individuals and families are accomplished.

19.0402 Consumer Science. An instructional program that describes the attitudes, concepts, skills, and understandings of consumers which contributes to their satisfaction in selection and use of goods and services.

.... Home Management (see 20.0109).

19.0499 Family/Consumer Resource Management, Other. An instructional program in family/consumer resource management not described above.

19.05 Food Sciences and Human Nutrition. A group of instructional programs that describe the role of food and nutrition in individual and family well being and in commercial and institutional food services, with emphasis being placed on food handling techniques; purchase and storage of food, and planning, preparing, and serving food to meet the needs of individuals and families.

19.0501 Food Sciences and Human Nutrition, General. An instructional program that generally describes the role of food and nutrition in individual and family well being and in commercial and institutional food services, with emphasis being placed on food handling techniques, purchase and storage of food, planning, preparing, and serving food to meet the needs of individuals and families.

19.0502 Food/Food Sciences. An instructional program that describes chemical and physical food properties during processing, storage, marketing, and use.

19.0503 Dietetics/Human Nutritional Services. An instructional program that describes the translation of the science of nutrition into practical solutions for the dietary needs of people and the preparation of professionals to deal with the role of nutrition in human health.

19.0599 Food Sciences and Human Nutrition, Other. Any instructional program in food sciences and human nutrition not described above.

19.06 Human Environment and Housing. A group of instructional programs that describe the behavorial, social, economic, functional and aesthetic aspects of housing and other environments. The interior design, furnishings, and equipment are addressed.

19.0601 Human Environment and Housing, General. An instructional program that generally describes the behavorial, social, econonmic, functional and aesthetic aspects of housing and other environments. The interior design, furnishings, and equipment and are addressed.

19.0602 Household Equipment. An instructional program that describes the purpose, design, selection, and use of equipment in the home.

19.0603 Housing. An instructional program that describes how housing designs as well as housing policy can influence the well being of individuals, families, and society. Fundamental interactions between human development and behavior and the environment are emphasized.

.... Interior Design (see 04.0501).

19.0699 Human Environment and Housing, Other. Any instructional program in human environment and housing not described above.

19.07 Individual and Family Development. A group of instructional programs that describe the basic development and behavioral characteristics of the individual within the context of the family from conception through life.

19.0701 Individual and Family Development, General. An instructional program that generally describes the basic developmental and behavioral characteristics of the individual within the context of the family from conception through life.

.... Child Development, Care, and Guidance (see 20.0102).

19.0703 Family Counseling. An instructional program that describes the factors affecting marital relationships, parent-child relationships, and the functioning of the family as a whole, including attention to separation, divorce and remarriage, death, exceptional children, and illness.

19.0704 Family Relations. An instructional program that describes the family throughout the life cycle with emphasis on family structures, functions, interactions, and roles of family members.

19.0705 Gerontological Services. An instructional program that describes the characteristics, attitudes, and behavior of older people in family settings, including physical, social, economic, and psychological needs and concerns; related legislation; and community resources.

19.0799 Individual and Family Development, Other. Any instructional program in individual and family development not described above.

19.09 Textiles and Clothing. A group of instructional programs that describe the ways of meeting psychological, sociological, economic, and physiological needs relative to clothing and textiles, including techniques of production, distribution, marketing, consumption, and relevant legislation.

19.0901 Textiles and Clothing, General. An instructional program that generally describes the ways of meeting psychological, sociological, economic, and physiological needs relative to clothing and textiles, including techniques of production, distribution, marketing, consumption, and relevant legislation.

19.0902 Fashion Design. An instructional program that describes the aesthetic and functional considerations in the design and production of garments and accessories.

19.0904 Textile Science. An instructional program that describes the chemical, physical, and functional properties of fibers, finishes, fabrics, and their production.

19.0999 Textiles and Clothing, Other. Any instructional program in textiles and clothing not described above.

19.99 Home Economics, Other. A group of instructional programs in home economics not described above.

19.999 Home Economics, Other. Any instructional program in home economics not described above.

20. Vocational Home Economics. A summary of groups of instructional programs that emphasize the acquisition of competencies (including skills and job attitudes) needed for securing and holding paid employment at the entry and advanced levels, and/or preparing for advancement in occupations utilizing home economics education knowledge and skills. Vocational home economics education instructional programs are developed from home economics education subject matter areas to meet the unique requirements of the specific vocations. Programs that prepare individuals for paid employment include: (1) services to individuals/families; (2) assistance to professional home economists and professionals in fields related to home economics in industry, business, and public and private agencies; and (3) other services and/or assistance directly related to one or more of the home economics subject matter areas, offered in formal and/or informal settings combined with supervised laboratory and work experiences.

20.01 Consumer and Homemaking Education. A group of instructional programs that prepare individuals at all education levels for the occupation of homemaking, emphasizing the acquisition of knowledge and the development of understanding attitudes, standards, values, and skills relevant to individual and family life. Includes instruction in consumer education, food and nutrition, family living and parenthood education, child growth and development, housing and home management (including resource management), and clothing and textiles; that emphasize the improvement of the home, the quality of individual and family life, and enhance potential employability. These programs prepare individuals for the multiple roles of homemaker and wage earner.

20.0101 Comprehensive Consumer and Homemaking Education. A group of instructional programs that prepares individuals at all educational levels for the occupation of homemaking, emphasizing the acquisition of knowledge and the development of understanding attitudes, standards, values, and skills relevant to individual and family life. Includes instruction in consumer education, food and nutrition, family living and parenthood education, child growth and development, housing and home management (including resource management), and clothing and textiles; that emphasize the improvement of the home, the quality of individual and family life, and enhance potential employability. These programs prepare individuals for the multiple roles of homemaker and wage earner.

20.0102 Child Development, Care, and Guidance. An instructional program that prepares individuals to understand children's physical, mental, emotional, and social growth and development, as well as their care and guidance. The program draws on aspects of the social and biological sciences of which home economics is a component. Observation and actual experiences with children and their parents are integral parts of the program.

20.0103 Clothing and Textiles. An instructional program that prepares individuals to understand the social, phychological, and physiological aspects of clothing and textiles; the nature, acquisition, and use of clothing and textile products; the selection, construction, maintenance, and alteration of clothing and textile products; and the effect of consumer choices on the individual and family as well as the clothing and textile industry.

20.0104 Consumer Education. An instructional program that prepares individuals to understand the values, needs, wants, goals, and resources that enable youth and adults to make rational decisions that contribute to family stability and quality of life. Includes instruction in budgeting and spending plans, use of credit, savings, investments, taxes, consumer buying, and consumer rights and responsibilities.

20.0105 Exploratory Homemaking. An instructional program that provides individuals in elementary, middle, and junior high school the opportunity to explore home economics subject matter areas. Includes instruction in the development of positive self-concepts; understanding personal growth and development; and relationships with peers and family members in becoming contributing members in the home, school, and community.

20.0106 Family/Individual Health. An instructional program that prepares individuals to understand the related aspects of health in family living with special emphasis on nutrition, emotional health, and physical health; the relationship of the health of an individual to the well-being of the family; the prevention of illness; and the basic care of the ill and convalescent in the home, including the elderly, the young child, and the handicapped.

20.0107 Family Living and Parenthood. An instructional program that prepares individuals to understand the nature, function, and significance of human relationships within the family/individual units. Includes instruction in the concepts and principles related to various family living conditions; the establishment and maintenance of relationships; and the preparation for marriage, parenthood, and family life. Instruction emphasizes the uniqueness of families and individuals, the development and socialization of the individuals, and meeting the needs and interests of individuals and family members.

20.0108 Food and Nutrition. An instructional program that prepares individuals to understand the principles of nutrition; the relationship of nutrition to health and well-being; the selection, preparation, and care of food; meal management to meet individual and family food needs and patterns of living; good economics and ecology; and optimal use of the food dollar.

20.03 Clothing, Apparel, and Textiles Management, Production, and Services. A group of instructional programs that prepare individuals for occupations concerned with the entire spectrum of clothing, apparel, and textiles management, production, and services, including but not limited to construction; fabric and fabric care; pattern design; principles in clothing construction and selection; fitting and alterations of ready-to-wear garments; custom tailoring; clothing maintenance; and textiles testing.

20.0301 Clothing, Apparel, and Textiles Management, Production, and Services, General. An instructional program that generally prepares individuals for occupations concerned with the entire spectrum of clothing, apparel, and textiles management, production, and services, including but not limited to construction; fabric and fabric care; pattern design; principles in clothing construction and selection; fitting and alterations of ready-to-wear garments; custom tailoring; clothing maintenance; and textiles testing.

20.0302 Clothing, Maintenance Aide. An instructional program that prepares individuals to repair and clean garments and accessories according to customer preferences. Includes instruction in examining garments to determine types of repair, alteration, or cleaning needed; fitting and marking garments for proper repairs; making repairs; assisting with laundering and drycleaning of garments; pressing garments; labeling and bagging garments; assisting in keeping records, keeping shop orderly and clean; and constructing garments in commercial garment or apparel factories as needed.

20.0303 Commercial Garment and Apparel Construction. An instructional program that prepares individuals to design and construct ready-to-wear garments and apparel. Includes instruction in designing and drafting patterns for standardized sizes; selecting appropriate fabric; cutting of fabric with commercial cutting equipment; stitching fabric on commercial power sewing equipment; applying finishes and notions to garments and apparel; and pressing and packing garments or apparel.

20.0304 Custom Apparel/Garment Seamstress. An instructional program that prepares individuals to construct, alter, and prepare garments to customer specifications. Includes instruction in knowledge of fibers, textiles, fabrics, and notions; understanding and applying metrication in measuring and fitting as may be necessary; constructing, altering, and preparing garments for women, men, and children according to customer specifications; using standard or power sewing machines or various hand stitches; designing, making, and fitting patterns to individuals; laying out patterns on the fabric and cutting out fabric with hand or power driven scissors or shears; basting fabric pieces together and fitting garments to customers; sewing fabrics together with specific seam finishes for particular fabrics; refitting and adjusting garments to customers; finishing by hand or power operated equipment; and pressing to remove wrinkles and smooth seams, collars, cuffs, and so forth.

20.0305 Custom Tailoring and Alteration. An instructional program that prepares individuals to construct, alter, and repair men's, women's and children's garments. Includes instruction in selection of design, fabric, and notions to customer specifications; taking measurements and fitting; preparing patterns; cutting, sewing, and altering by hand; and/or finishing of garments.

20.0306 Fashion/Fabric Coordination. An instructional program that prepares individuals to assist in coordinating garments for various occasions. Includes instruction in fashion design, trends, characteristic styles, and merchandising; describing to customers the garment construction, quality, and fiber content; care and durability; selecting current fashion for figure types, fitting garments on customers; planning and presenting fashion shows; developing fashion displays; assisting home sewers with construction techniques; advising on quantity of fabric needed; measuring and cutting fabric; ordering, receiving, and displaying fabric and merchandise; keeping shop and store clean and orderly; and taking inventories and replenishing stock.

20.0308 Wedding/Specialty Consulting. An instructional program that prepares individuals to advise individuals and/or families on preparations for weddings, including wedding etiquette; selection of attire for bride, groom, attendants, and others; fitting and marking garments for needed alterations; assisting in selection of invitations, flowers, linens, and other home accessories; working with caterers and photographers; keeping records of gifts; constructing, displaying, and selling wedding attire; and conducting wedding fashion shows.

20.0399 Clothing, Apparel, and Textiles Management, Production, and Services, Other. Any instructional program in clothing, apparel, and textiles management, production, and services not described above.

20.04 Food Production, Management, and Services. A group of instructional programs that prepare individuals in managerial, production, and service skills used in institutional, commercial, or self-owned food establishments or other food industry occupations. Includes instruction in planning, selecting, storing, purchasing, preparing, and serving quantity food and food products; nutritive values; safety and sanitation precautions; use and care of commercial equipment; serving techniques; special diets; and management of food establishments.

20.0401 Food Production, Management, and Services, General. An instructional program that generally prepares individuals in managerial, production, and service skills used in institutional, commercial, or self-owned food establishments or other food industry occupations. Includes instruction in planning, selecting, storing, purchasing, preparing, and serving quantity food and food products; nutritive values; safety and sanitation precautions; use and care of commercial equipment; serving techniques; special diets; and management of food establishments.

20.0402 Baking. An instructional program that prepares individuals to engage in the preparation of bakery food products for use in commercial food establishments, for retail distribution, or for special functions. Includes instruction in making, freezing, and handling baked products, decorating, counter display and service and packaging of bakery products.

20.0403 Chef/Cook. An instructional program that prepares individuals to engage in the preparation and cooking of a variety of foods to main nutritive values and quality control. Instruction is given in the determination of quantity of food to be prepared and the size of servings for different types of foodservices; the use and care of commercial equipment; adherence to sanitation procedures for storage, preparation, and service of foods; the observation of health, safety, and sanitary precautions in the cooking areas; and the use of equipment or utensils.

20.0404 Dietetic Aide/Assisting. An instructional program that prepares individuals to utilize nutritional knowledge in preparing and serving meals to individuals with specific dietary needs under the direction of a professional dietitian. Includes instruction in selecting and using specific pieces of equipment for particular tasks in food preparation and services; preparing and serving simple foods according to diet instruction; examining assembled trays for conformance with diet regulations and nutritional values; handling foods, beverages, equipment, utensils, and table settings in order to prevent contamination; observing safety and sanitary standards and regulations; following appropriate emergency procedures; and assisting in the management of dietary facilities. Programs prepare dietetic aides to work under the direction of an assistant and a professional dietitian in performing the less complicated dietetic tasks; programs prepare dietetic assistants to work under the direction of a professional dietitian.

20.0405 Food Catering. An instructional program that prepares individuals to engage in booking, planning, and managing the preparation and service of food for special occasions. Includes instruction in arranging for equipment, tables, space decorations, and entertainment, and for transportation of food and equipment; supervising cleanup; assisting in taking inventories; storing food and supplies; observing safety precautions; and following food handling procedures as specified by health and sanitation regulations. Programs prepare individuals both as food caterers, who perform managerial tasks and are recognized as experts in specialty food preparation and products, and as food-caterer aides, who work under the direction of food caterers.

20.0406 Food Service. An instructional program that prepares individuals to select, purchase, prepare, or produce food in quantities; preserve nutritive value of foods; follow standard recipes for quality control; prepare and serve quantity foods; receive, store, and issue foods and supplies; select and use commercial equipment for production and services; observe safety precautions and sanitation regulations; store and handle food and equipment; clean food preparation and service areas; take inventories; and work in or manage food-service establishments.

20.0408 School Food Service. An instructional program that prepares individuals for overall planning, supervising, purchasing, preparing, and serving goods and food products in school food-service establishments. Includes instruction in planning appetizing and nutritious menus suitable for school-age students; creating an enjoyable and pleasant environment for serving foods; recording meals served and food used on a daily basis; taking inventory of supplies and equipment; assisting in cleaning school food-service facilities; and performing dishwashing tasks and storage of equipment or food according to health, safety, and sanitation regulations.

20.0499 Food Production, Management, and Services, Other. Any instructional program in food production, management, and services not described above.

20.05 Home Furnishings and Equipment Management, Production, and Services. A group of instructional programs that prepare individuals in the entire spectrum of home furnishings and equipment. Includes instruction in assisting purchasers in selecting and maintaining suitable home furnishings and/or equipment; assisting interior designers, decorators, or professional home service directors; making slipcovers, draperies, curtain and window treatments, and upholstery; and designing accessories such as floral arrangements or decorations.

20.0501 Home Furnishings and Equipment Management, Production, and Services, General. An instructional program that generally prepares individuals in the entire spectrum of home furnishings and equipment. Includes instruction in assisting purchasers in selecting and maintaining suitable home furnishings and/or equipment; assisting interior designers, decorators, or professional home service directors; making slipcovers, draperies, curtain and window treatments, and upholstery; and designing accessories such as floral arrangements or decorations.

20.0502 Custom Drapery and Window Treatment Design/Making. An instructional program that prepares individuals to custom design and construct draperies and other window treatments. Includes instruction in art principles, color design, textiles, fabrics, and finishes; selecting appropriate fabrics; measuring and determining materials needed; determining cost of materials and labor; constructing various types of draperies and other window treatments; using chemical or other finishes to prolong the life of fabrics; and installing draperies or other window treatment fixtures and other materials.

20.0503 Custom Slipcovering and Upholstering. An instructional program that prepares individuals to upholster, reupholster, repair, and slipcover home furnishing items in accordance with customer specifications. Includes instruction in art principles, color schemes, textures, designs, and textiles; selecting fabrics, trims, and finishes appropriate for the particular item(s); measuring and determining cost of materials and labor; identifying and using chemical treatments that prolong the life of fabrics or materials; and constructing and using latest techniques and methods for upholstering, reupholstering, repairing, and slipcovering the various types of home furnishings.

20.0504 Floral Design. An instructional program that prepares individuals to design and fashion floral arrangements and decorations. Includes instruction in selecting appropriate containers, flowers, and accessories for special occasions or events such as weddings, dinners, banquets, and holiday celebrations; working with consumers, decorators, or caterers to plan and design floral arrangements that are appropriate and within cost limitations; arranging various floral decorations for a variety of settings, including households and commercial businesses; and packaging and delivering the decorative arrangements.

20.0505 Home Decorating. An instructional program that prepares individuals in processing procedures, observations, and techniques essential to the development of designs for home environments.

20.0506 Home Furnishings Aide. An instructional program that prepares individuals to assist customers in the selection of home furnishings and accessories to meet individual needs, preferences, and budgets. Includes instruction in how to assist interior designers/decorators in planning and decorating customer homes or offices; constructing draperies, window treatment items, and other home accessories; and coordinating arrangements of furniture, samples, and accessories in stores.

20.0507 Home-Service Assisting. An instructional program that prepares individuals to assist professional home-service directors in demonstrating various kinds of large and small appliances and/or household equipment to consumers; in selecting, using, and caring for equipment for maximum consumer satisfaction and energy conservation; and in the planning of kitchens, laundry areas, and other work places in homes, churches, community centers, schools, and other institutions.

20.0599 Home Furnishings and Equipment Management, Production, and Services, Other. Any instructional program in home furnishings and equipment management, production and services not described above.

20.06 Institutional, Home Management, and Supporting Services. A group of instructional programs that prepare individuals for occupations in institutional/executive housekeeping; hotel/motel housekeeping; commercial cleaning; provision of services to the aged in their homes and in institutions; assistance in the management of household tasks; and assistance to consumers in decision making in relation to housing, food, clothing, community resources, and other homemaking concerns.

20.0601 Institutional, Home Management, and Supporting Services, General. An instructional program that generally prepares individuals for occupations in institutional/executive housekeeping; hotel/motel housekeeping; commercial cleaning; provision of services to the aged in their homes and in institutions; assistance in the management of household tasks; and assistance to consumers in decision making in relation to housing, food, clothing, community resources, and other homemaking concerns.

20.0602 Companion to the Aged. An instructional program that prepares individuals to assist persons with personal, social, and business affairs, including grooming and dressing; care for clothing and household linens; preparation and service of meals; practice of safety measures to prevent accidents; keeping house; answering correspondence and paying bills; outings for exercise or social activities; and reading, playing games, playing cards, or other entertainment activities. Programs prepare individuals to perform other duties to protect or promote the well-being of the aged/elderly by assisting them in living independently in their own homes, thus preventing adverse effects of isolation and loneliness.

20.0603 Consumer Aide/Assisting. An instructional program that prepares individuals to assist consumers in making wise and satisfying selections and rational decisions in the marketplace. Includes instruction in preparing menus or recipes using food specials or in-season foods; posting unit costs; demonstrating new food products and equipment; advising consumers on the use, care, and storage of products and equipment; preparing information exhibits, displays, and handouts; performing personal shopping services; and performing other activities that are appropriate in meeting the needs of consumers.

20.0604 Custodial Services. An instructional program that prepares individuals to clean and care for buildings; fixtures; furnishings; floor surfaces such as linoleum, plastic, terrazzo, tiles, rugs, and wood; and wall coverings such as panel, paint, plastic, wood, and synthetic materials. Instruction is given in using and caring for tools; dusting, wet mopping, scrubbing, waxing, and refinishing surfaces; cleaning toilets, windows, and walls; applying various cleaning agents, protective coatings, and disinfectants; scheduling work; and purchasing custodial supplies.

20.0605 Executive Housekeeping. An instructional program that prepares individuals to clean and care for floors, floor coverings, walls, woodwork, windows, window treatments, furnishings, and equipment; make beds; launder and store household linens; and use cleaning and sanitizing compounds, fluids, and chemicals correctly to protect health and safety of individuals. Advanced instruction and training prepare learners to assume executive housekeeping duties such as establishing standards and procedures for housekeeping staff; planning work schedules; making recommendations to management for repairs, replacement, or relocation of furnishings, equipment, or space; keeping inventories of supplies and equipment; and evaluating performance of staff with recommendations for promotion or dismissal.

20.0606 Homemaker's Aide. An instructional program that prepares individuals to assist homemakers in the management and operation of the home. Includes instruction in the care and guidance of children; care of the aged or convalescent; meal planning; marketing, and food preparation and service; laundering and caring for clothing and household linens; cleaning and caring for home furnishings, household furnishings, and household equipment; overall management and decision making; and interpersonal relationships.

20.0699 Institutional, Home Management, and Supporting Services, Other. Any instructional program in institutional, home management, and supporting programs not described above.

20.99 Vocational Home Economics, Other. A group of instructional programs in vocational home economics not described above.

20.9999 Vocational Home Economics, Other. Any instructional program in vocational home economics not described above.

21. Industrial Arts. A summary of groups of instructional programs that provide individuals with knowledge that (a) pertains to the body of related subject matter, or related courses, organized for the development of understanding about all aspects of industry and technology, including learning experiences involving activities such as experiments, designating, constructing, evaluating, and using tools, machines, materials, and processes; and (b) assists individuals in making informed and meaningful occupational choices or which prepare them for entry into advanced trade and industrial or technical education programs.

21.01 Industrial Arts. A group of instructional programs that provide individuals with knowledge that (a) pertains to the body of related subject matter, or related courses, organized for the development of understanding about all aspects of industry and technology, including learning experiences involving activities such as experiments, designating, constructing, evaluating, and using tools, machines, materials, and processes; and (b) assists individuals in making informed and meaningful occupational choices or which prepare them for entry into advanced trade and industrial or technical education programs.

21.0101 Industrial Arts, General. A instructional program that provides the student with general exploratory experiences and insights into trade and industrial career opportunities so that the individual can make meaningful occupational and educational choices. Instruction is provided in using tools, equipment, materials, and products associated with industry and technology; role playing in simulated enterprises associated with a umber of career areas; studying and analyzing the materials, products, processes, problems, uses, developments, and contributions of many of the elements in various career areas; studying the organization of numerous industries and businesses while experiencing typical aspects of many; and researching, planning, designing, constructing, evaluating, and generalizing in association with problems and projects related to various careers.

21.0102 Construction. An instructional program that prepares individuals for enrollment in advanced vocational and technical education programs and includes occupational and basic technical information and laboratory experiences related to practices in the construction industry. The purpose of the program is to assist individuals in making meaningful occupational and educational choices. Individuals are provided with the information and basic skills concerned with the erection, installation, maintenance, or repair of residential and industrial structures. Instructional activities are centered around building structures using a variety of construction materials and processes involving design, masonry, carpentry, electricity, sheetmetal, and plumbing.

21.0103 Drafting and Design. An instructional program that prepares individuals for enrollment in advanced vocational and technical education programs and includes occupational and basic technical information and laboratory experiences directly related to drafting in industry. The purpose of the program is to assist individuals in making meaningful occupational and educational choices. Instructional activities involve lettering, freehand sketching, orthographic projection, geometric construction, dimensioning, sectioning, reproduction, pictorial drawing and auxiliary views using technical drawing instruments and techniques.

21.0104 Electricity/Electronics. An instructional program that prepares individuals for enrollment in advanced vocational and technical education programs and includes occupational and basic technical information and laboratory experiences directly related to electricity and electronics. The purpose of the program is to assist individuals in making meaningful occupational and educational choices. Individuals are provided with the fundamentals of the theory, measurement, control, and applications of electrical energy. Instructional activities include reading instructions, interpreting schematics, setting up experimental apparatus, making measurements, testing circuits, and recording results.

21.0105 Energy, Power, and Transportation. An instructional program that prepares individuals for understanding the energy, power, and transportation industries and occupations by utilizing exploratory experiences and laboratory activities. The purpose of the program is to assist individuals in making meaningful occupational and educational choices. Instructional activities focus on the theory, maintenance, and servicing of machines and devices with emphasis on energy sources, small gas engines, basic electricity, and methods of transmitting power.

21.0106 Graphic Arts. An instructional program that prepares individuals for enrollment in advanced vocational and technical education programs by providing exploratory experiences and laboratory activities related to graphic arts. The purpose of the program is to assist individuals in making meaningful occupational and educational choices. The program focuses on the fundamentals of graphic arts, including the study of information and skills concerned with graphic reproduction using the tools, materials and processes of the printing industry. Instructional experiences include designing, composing, printing, and evaluating reproduction techniques.

21.0107 Manufacturing/Materials Processing. An instructional program that prepares individuals for enrollment in advanced vocational and technical education programs and includes operational and basic technical information and laboratory experiences directly related to the manufacturing processes used by industry. The purpose of the program is to assist individuals in making meaningful occupational and educational choices. Instructional activities focus on the study of the information and the basic skills concerned with industrial-technical materials and processes, including their properties and utilization as they are fabricated into usable products. Instructional activities involve hand and machine processes for the fabrication, analysis, or testing of metals, woods, and plastics.

21.0199 Industrial Arts, Other. Any instructional program in industry arts not described above.

22. Law. A summary of groups of instructional programs that describe the principles and procedures, in the form of legislation, decisions, regulations, and orders, developed and enforced by institutions of government to maintain social order.

22.01 Law. A group of instructional programs that describe the principles and procedures, in the form of legislation, decisions, regulations, and orders, developed and enforced by institutions of government to maintain social order.

22.0101 Law. An instructional program that describes the principles and procedures, in the form of legislation, decisions, regulations, and orders, developed and enforced by institutions of government to maintain social order.

22.0102 Pre-Law. An instructional program that prepares individuals to be admitted to and pursue a professional career in law.

22.0103 Legal Assisting. An instructional program that prepares individuals to assist professional lawyers or to work in courthouses. Includes instruction in basic principles of law; legal documentation; legal-library operations and utilization; civil and criminal law; legal records; courts; and legal procedures.

22.0199 Law, Other. Any instructional program in law not described above.

23. Letters. A summary of groups of instructional programs that describe sounds, literature, syntax, phonology, morphology, semantics, sentences, prose and verse, as well as the development of skills and attitudes used in communicating and evaluating thought and feelings through oral and written language.

23.01 English, General. A group of instructional programs (see 23.0101).

23.0101 English, General. An instructional program that generally describes the skills and techniques essential to learning the English language.

23.02 Classics. A group of instructional programs (see 23.0201).

23.0201 Classics. An instructional program that generally describes the language and literature of the ancient Greco-Roman world in English translation.

23.03 Comparative Literature. A group of instructional programs (see 23.0301).

23.0301 Comparative Literature. An instructional program that describes the comparison of various aspects of literature, based on selected dimensions such as genre, theme, literary period, and language source.

23.04 Composition. A group of instructional programs (see 23.0401).

23.0401 Composition. An instructional program that describes the principles and techniques of selecting, combining, arranging, and developing ideas, and expressing them in appropriate written forms such as narration, exposition, or persuasion.

23.05 Creative Writing. A group of instructional programs (see 23.0501).

23.0501 Creative Writing. An instructional program that describes the techniques of composition of such forms of literature as the short story, verse, drama, and others that involve some degree of spontaneity and an exercise of the imagination on the part of the writer.

23.06 Linguistics (Includes Phonetics, Semantics, and Philology). A group of instructional programs (see 23.0601).

23.0601 Linguistics (Includes Phonetics, Semantics, and Philology). An instructional program that describes the descriptive, historical, and theoretical aspects of language, its nature, structure, varieties, and development, especially sound systems (phonology), grammatical systems (morphology, syntax), lexical systems (vocabulary, semology), and writing systems.

23.07 Literature, American. A group of instructional programs (see 23.0701).

23.0701 Literature, American. An instructional program that describes American writings in prose or verse, especially those of an imaginative or critical character, including biography, criticism, drama, essay, fiction, poetry, myths, and legends.

23.08 Literature, English. A group of instructional programs (see 23.0801).

23.0801 Literature, English. An instructional program that describes British writings in prose or verse, especially those of an imaginative or critical character, including biography, criticism, drama, essay, fiction, poetry, myths, and legends.

23.10 Speech, Debate, and Forensics. A group of instructional programs (see 23.1001).

23.1001 Speech, Debate, and Forensics. An instructional program that describes strategies for improving competence in speaking and listening and the application of forms of argument to testing ideas or reaching decisions.

23.11 Technical and Business Writing. A group of instructional programs (see 23.1101).

23.1101 Technical and Business Writing. An instructional program that describes the theory, methods, and skills needed for writing scientific, technical, and business papers, and monographs.

23.12 English as a Second Language. A group of instructional programs (see 23.1201).

23.1201 English as a Second Language. An instructional program that provides foreign-born students who have little or no knowledge of English, with skills to use the language competently in speaking, writing, reading, and listening situations.

23.99 Letters, Other. A group of instructional programs in letters not described above.

23.9999 Letters, Other. Any instructional program in letters not described above.

24. Liberal/General Studies. A summary of groups of instructional programs that describe the foundation necessary for understanding self and society through an appreciation of the concerns of civilization and common heritage.

24.01 Liberal/General Studies. A group of instructional programs (see 24.0101).

24.0101 Liberal Arts and Sciences. An instructional program that describes the foundation necessary for understanding self and society through an appreciation of the concerns of civilization and common heritage.

24.0102 General Studies. An instructional program that generally describes the overall aspects of a group of subjects without attempting to deal with specific aspects.

24.0199 Liberal/General Studies, Other. Any instructional program in liberal/general studies not described above.

25. Library and Archival Sciences. A summary of groups of instructional programs that describe the knowledge and skills required to develop, organize, store, retrieve, administer, and facilitate the use of collections of information in such formats as books, documents, manuscripts, machine-readable data bases, filmed and recorded materials, specimens, and artifacts.

25.01 A group of instructional programs (see 25.0101).

25.0101 Library and Archival Sciences, General. An instructional program that generally describes the knowledge and skills required to develop, organize, store, retrieve, administer, and facilitate the use of collections of information in such formats as books, documents, manuscripts, machine-readable data bases, filmed and recorded materials, specimens, and artifacts.

25.02 Archival Science. A group of instructional programs (see 25.0201).

25.0201 Archieval Science. An instructional program that describes the collection, organization, preservation, service, and retrieval of public records, documents of historical significance, and other archival materials.

25.03 Library Assisting. A group of instructional programs (see 25.0301).

25.0301 Library Assisting. An instructional program that prepares individuals to assist professional librarians. Includes instruction in principles, systems, processes, and procedures in library operation; library resources and services; processes of acquisition, cataloging, storage, and display systems; discovery and retrieval of requested materials; management of books, periodicals, and other printed materials; technological media such as audiovisual and education equipment; public services such as library loans; and data-processing implications for automation of records in libraries.

25.04 Library Science. A group of instructional programs (see 25.0401).

25.0401 Library Science. A group of instructional programs that describes the attitudes, knowledge, and skills of library materials and libraries.

25.05 Museology. A group of instructional programs (see 25.0501).

25.0501 Museology. An instructional program that describes the attitudes, knowledge, and skills required to develop, organize, administer, store and retrieve, and facilitate the use of museums and museum materials including art galleries and zoological gardens.

25.99 Library and Archival Sciences, Other. A group of instructional programs in library and archival sciences not described above.

25.9999 Library and Archival Sciences, Other. Any instructional program in library and archival sciences not described above.

26. Life Sciences. A summary of groups of instructional programs that describe the systematic study of living organisms.

26.01 Biology, General. A group of instructional programs (see 26.0101).

26.0101 Biology, General. An instructional program that generally describes life forms, including the structure, function, reproduction, growth, heredity, evolution, behavior, and distribution of living organisms.

26.02 Biochemistry and Biophysics. A group of instructional programs (see 26.0201).

26.0201 Biochemistry and Biophysics. An instructional program that describes the chemistry of living systems, the biological phenomena that result from the interactions among these systems, including energy changes, and biological phenomena using physical principles and methods.

26.03 Botany. A group of instructional programs that describe the structure, function, reproduction, growth, heredity, evolution, and plant life.

26.0301 Botany, General. An instructional program that generally describes the structure, function, reproduction, growth, heredity, evolution, and plant life.

26.0302 Bacteriology. An instructional program that describes the morphology, physiology, metabolism, and growth of bacteria, and their effects upon substances and other organisms.

26.0304 Plant Genetics. An instructional program that describes the inheritance of traits and characters in plants.

26.0305 Plant Pathology. An instructional program that describes the nature, causes, and development of plant diseases.

26.0307 Plant Physiology. An instructional program that describes the study of plant functions, including such metabolic processes as photosynthesis, respiration, assimilation, and transpiration.

26.0399 Botany, Other. Any instructional program in botany not described above.

26.04 Cell and Molecular Biology. A group of instructional programs that describe the cell as a unit of organization in plans and animals, and the molecular structure and processes of living organisms.

26.0401 Cell Biology. An instructional program that describes the cell as a unit of organization in plants and animals.

26.0402 Molecular Biology. An instructional program that describes the molecular structure and processes of living organisms.

26.0499 Cell and Molecular Biology, Other. Any instructional program in cell and molecular biology not described above.

26.05 Microbiology. A group of instructional programs (see 26.0501).

26.0501 Microbiology. An instructional program that describes micro-organisms including bateria, viruses, protista, protozoans, and certain fungi.

26.06 Miscellaneous Specialized Areas, Life Sciences. A group of instructional programs that describe specialized areas of the life sciences not described elsewhere in life sciences.

26.0601 Anatomy. An instructional program that describes the structure of plants and animals including their tissues, organs, and systems.

26.0602 Biometrics and Biostatistics. An instructional program that describes the application of mathematical and statistical models and methodology in biology.

26.0603 Ecology. An instructional program that describes the interrelationships between organisms and their environments.

26.0604 Embryology. An instructional program that describes the formation, development, structure, and functional activities of embryos; organisms in the state of development before emerging from the egg or before metamorphosis.

26.0605 Endocrinology. An instructional program that describes the endocrine glands and their secretions in relation to their processes or functions, including their care and treatment.

26.0606 Histology. An instructional program that describes the microscopic structures, compositions, and functions of organic tissues in plants, animals, and human beings through selection and preparation of microscopic section.

26.0607 Marine Biology. An instructional program that describes the nature and interrelationships of salt-water organisms and their aquatic environments.

26.0608 Neurosciences. An instructional program that describes the anatomy, physiology, biochemistry, and molecular biology of nerves and nervous tissues and their relation to behavior and learning.

26.0609 Nutritional Sciences. An instructional program that describes the science of food in relationship to human needs, the nutrients and other substances of food, and the processes by which the organism ingests, digests, absorbs, transports, utilizes, and excretes food substances.

26.0610 Parasitology. An instructional program that describes the structure, reproduction, development, distribution, and control of plant and animal parasites.

26.0611 Radiobiology. An instructional program that describes the nature and effects of radiation on organisms and biological systems.

26.0612 Toxicology. An instructional program that describes the nature, source, identification, and characteristics of poisons, toxic substances, and exogenous chemical agents which can cause death, illness, or injury upon contact with, or ingestion into the body, including the detection and measurement of their effects and the use of antidotes and other curatives.

26.0699 Miscellaneous Specialized Areas, Life Sciences, Other. Any instructional program in specialized areas of life sciences not described above.

26.07 Zoology. A group of instructional programs that describe animals, including their structure, reproduction, growth, heredity, evolution, behavior, and distribution.

26.0701 Zoology, General. An instructional program that describes animals, including their structure, reproduction, growth, heredity, evolution, behavior, and distribution.

26.0702 Entomology. An instructional program that describes the insects, including life cycle, morphology, physiology, ecology, and taxonomy.

26.0703 Genetics, Human and Animal. An instructional program that describes the inheritance of traits and character in humans and animals.

26.0704 Pathology, Human and Animal. An instructional program that describes the nature, causes, and development of human and animal diseases.

26.0705 Pharmacology, Human and Animal. An instructional program that describes the therapeutic and toxic effects of drugs, including pharmacodynamic behavior, metabolism, interactions with other chemicals, and the biochemical, and physiological effects on human beings and animals.

26.0706 Physiology, Human and Animal. An instructional program that describes human and animal functions, including processes such as respiration, circulation, digestion, excretion, and reproduction.

26.0799 Zoology, Other. Any instructional program in zoology not described above.

26.99 Life Sciences, Other. A group of instructional programs in life sciences not described above.

26.9999 Life Sciences, Other. Any instructional program in life sciences not described above.

27. Mathematics. A summary of groups of instructional programs that describe the sciences of logical symbolic language and their applications.

27.01 Mathematics, General. A group of instructional programs (see 27.0101).

27.0101 Mathematics, General. An instructional program that generally describes the sciences of logical symbolic language and their applications.

27.02 Actuarial Sciences. A group of instructional programs (see 27.0201).

27.0201 Actuarial Sciences. An instructional program that describes the mathematical and statistical methodology dealing problems of risks in insurance.

27.03 Applied Mathematics. A group of instructional programs (see 27.0301).

27.0301 Applied Mathematics. An instructional program that describes the real world systems by deterministic and probabilistic models.

27.04 Pure Mathematics. A group of instructional programs (see 27.0401).

27.0401 Pure Mathematics. An instructional program that describes numbers, form, arrangement, and associated reltionships, using rigorously defined literal numerical and operational symbols.

27.05 Statistics. A group of instructional programs (see 27.0501).

27.0501 Statistics. An instructional program that describes the probabilistic models involving a finite number of outcomes and the science of collecting, describing, and interpreting numerical data.

27.99 Mathematics, Other. A group of instructional programs in mathematics not described above.

27.9999 Mathematics, Other. Any instructional program in mathematics not described above.

28. Military Sciences. A summary of groups of instructional programs that describe the causative factors and tactical principles of warfare, armed conflict, and defense.

28.01 Aerospace Science (Air Force). A group of instructional programs (see 28.0101).

28.0101 Aerospace Science (Air Force). An instructional program that describes the purpose and objectives of the United States Air Force and all its branches, its rank structure, its customs and traditions, and its importance in national defense and security.

28.02 Coast Guard Science. A group of instructional programs (see 28.0201).

28.0201 Coast Guard Science. An instructional program that describes the purpose and objectives of the United States Coast Guard and all its branches, its rank structure, its customs and traditions, and its importance in national defense and security.

28.03 Military Science (Army). A group of instructional programs (see 28.0301).

28.0301 Military Science (Army). An instructional program that describes the purpose and objectives of the United States Army and all its branches, its rank structure, its customs and traditions, and its importance in national defense and security.

28.04 Naval Science (Navy, Marines). A group of instructional programs (see 28.0401).

28.0401 Naval Science (Navy, Marines). An instructional program that describes the purpose and objectives of the United States Navy and Marine Corps and all their branches, rank structure, customs and traditions, and importance in national defense and security.

28.05 Maritime Science (Merchant Marine). A group of instructional programs (see 28.0501).

28.0501 Maritime Science (Merchant Marine). An instructional program that prepares the individuals to serve as officers in the U.S. merchant marine. Includes instruction in marine engineering; marine navigation and marine transporation as well as the purposes and objectives of the merchant marine and its branches, rank structure, customs, traditions, and its importance in national defense and security.

28.99 Military Sciences, Other. A group of instructional programs in military sciences not described above.

28.9999 Military Sciences, Other. Any instructional program in military sciences not described above.

29. Military Technologies. A summary of groups of instructional programs that prepare individuals to undertake the broad range of technical tasks required to keep the armed forces combat ready. Programs stress specialized, practical knowledge related to the mechnical, scientific, or technical aspects of military science in a variety of areas such as military communications and weapons systems.

29.01 Military Technologies. A group of instructional programs (see 29.0101).

29.0101 Military Technologies. An instructional program that prepares individuals to undertake the broad range of technical tasks required to keep the armed forces combat ready. Programs stress specialized, practical knowledge related to the mechnical, scientific, or technical aspects of military science in a variety of areas such as military communications and weapons systems.

29.99 Military Technologies, Other. A group of instructional program in military technologies not described above.

29.9999 Military Technologies, Other. Any instructional program in military technologies not described above.

30. Multi/Interdisciplinary Studies. A summary of groups of instructional programs, the components of which derive from two or more separate conventional academic instructional programs.

30.01 Biological and Physical Sciences. A group of instructional programs (see 30.0101).

30.0101 Biological and Physical Sciences. An instructional program that describes either a general synthesis of one or more of the biological and physical sciences (for example, applied sicence or general science), or a specialization which draws from the biological and physical sciences (for example, environmental science/studies).

30.02 Clinical Pastoral Care. A group of instructional programs (see 30.0201).

30.0201 Clinical Pastoral Care. An instructional program that describes the methods, theories, and techniques of providing care and counseling through the relationship of theology to the practice of the ministry.

30.03 Engineering and Other Disciplines. A group of instructional programs (see 30.0301).

30.0301 Engineering and Other Disciplines. An instructional program that describes either a general synthesis of one or more of the engineering and other disciplines (for example, engineering and mathematics, or engineering and physics), or a specialzation which draws from engineering and other disciplines.

30.04 Humanities and Social Sciences. A group of instructional programs (see 30.0401).

30.0401 Humanities and Social Sciences. An instructional program that describes either a general synthesis of one or more of the humanities and social sciences or a specialzation which draws from humanities and social sciences (for example, behaviorial science, classicial civilization, or human development).

30.05 Peace Studies. A group of instructional programs (see 30.0501).

30.0501 Peace Studies. An instructional program that describes the peace development process including the analysis of peace and war systems, dispute settlement techniques, social movements, working for creative change, world order studies, and conflict analysis and regulation.

30.06 Systems Science. A group of instructional programs (see 30.0601).

30.0601 Systems Science. An instructional program that describes a multidisciplinary approach to the study of innate complexity which by synthesizing systemic findings from the natural, social, technological, behavioral and life sciences, and other specialized fields brings holistic perspectives to the solution of problems within a general context.

30.07 Women's Studies. A group of instructional programs (see 30.0701).

30.0701 Women's Studies. An instructional program that describes the history, society, politics, culture, and economics of women.

30.08 Mathematics and Computer Science. A group of instructional programs (see 30.0801).

30.0801 Mathematics and Computer Science. An instructional program that describes a general synthesis of mathematics and computer science or a specialization which draws from mathematics or computer sicnece, e.g., operations research.

30.09 Imaging Science. A group of instructional programs (see 30.0901).

30.0901 Imaging Science. An instructional program that describes an interdisciplinary study involving engineering, computer technology, and the graphic arts and sciences related to the generation, manipulation, analysis, delivery, and effect of visual images processed primarily through electronic means.

30.99 Multi/Interdisciplinary Studies, Other. A group of instructional programs in multi/interdisciplinary studies not described above.

30.9999 Multi/Interdisciplinary Studies, Other. Any instructional program in multi/interdisciplinary studies not described above.

31. Parks and Recreation. A summary of groups of instructional programs that describe the principles and procedures of providing parks and recreational facilities and services for the benefit of the general public.

31.01 Parks and Recreation, General. A group of instructional programs (see 31.0101).

31.0101 Parks and Recreation, General. An instructional program that generally describes the principles and procedures of providing parks and recreational facilities and services for the benefit of the general public.

31.02 Outdoor Recreation. A group of instructional programs (see 31.0201).

31.03 Parks and Recreation Management. A group of instructional programs (see 31.0301).

31.0301 Parks and Recreation Management. An instructional program that prepares individuals to plan and maintain recreational facilities and programs for public or private agencies.

31.04 Water Resources. A group of instructional programs (see 31.0401).

31.0401 Water Resources. An instructional program that describes the physical, biological, and social sciences, and the practices which are essential to the understanding and management of water resources for optimum yield and use, as well as conservation.

31.99 Parks and Recreation, Other. A group of instructional programs in parks and recreation not described above.

31.9999 Parks and Recreation, Other. Any instructional program in parks and recreation not described above.

32. Basic Skills. A summary of groups of instructional programs that describe the fundamental skills a person is normally thought to need in order to function productively in society.

32.01 Basic Skills. A group of instructional programs that describe the fundamental skills a person is normally thought to need in order to function productively in society.

32.0101 Basic Skills, General. An instructional program that generally describes the fundamental skills a person is normally thought to need in order to function productively in society.

32.0102 Academic and Intellectual Skills. An instructional program that describes the ability to reason through analytical and logical thinking.

32.0103 Communication Skills. An instructional program that describes the development of reading, writing, and speaking abilities that are needed to perform day-to-day tasks and which form the basis of later learning and achievement.

32.0104 Computational Skills. An instructional program that describes the development of mathematical abilities that are needed to perform day-to-day tasks and which form the basis of later learning and achievement.

32.0105 Job-Seeking/Changing Skills. An instructional program that describes the development of skills that are generally needed in order to obtain a job: how to assess one's own capabilities and skills, how to find and use information sources on job openings, how to fill out an application, and how to handle an interview.

32.0106 Motor Skills. An instructional program that describes the enhancement of muscular development and coordination.

32.0107 Career Exploration. An instructional program that describes possible occupations, the means for preparing for them, and the techniques for getting hired.

32.0199 Basic Skills, Other. Any instructional program in basic skills not described above.

33. Citizenship/Civic Activities. A summary of groups of instructional programs that describe how individuals can facilitate governmental functions and contribute to the well-being of their community through civic action.

33.01 Citizenship/Civic Activities. A group of instructional programs that describes how individuals can facilitate governmental functions and contribute to the well-being of their community through civic action.

33.0101 Citizenship/Civic Activities, General. An instructional program that generally describes how individuals can facilitate governmental functions and contribute to the well-being of their community through civic action.

33.0102 American Citizenship. An instructional program that describes the improvement of an individual's capacity to understand and function as a citizen through a general understanding of the basic principles of American government, voting rights, and so forth.

33.0103 Civic Appreciation. An instructional program that describes an increased awareness of an individual's community through understanding local government and history.

33.0104 Civic Participation. An instructional program that describes the improvement of an individual's capacity to actively participate within the community in specific voluntary functions such as being an election official.

33.0199 Citizenship/Civic Activities, Other. Any instructional program in citizenship/civic activities not described above.

34. Health-Related Activities. A summary of groups of instructional programs that describe the promotion of the health of individuals.

34.01 Health-Related Activities. A group of instructional programs that describe the promotion of the health of individuals.

34.0101 Health-Related Activities, General. A group of instructional programs that generally describes the promotion of the health of individuals.

34.0102 Birth-Related Health Practices. An instructional program that describes all facets of childbirth including pre- and post-natal care, care of the newborn, and family planning techniques.

34.0103 Health Enhancement Practices. An instructional program that describes the principles, techniques, and methods by which individuals can improve their overall physical and emotional well-being.

34.0104 Health Treatment/Prevention Practices. An instructional program that describes the principles, techniques, and methods by which individuals can improve or maintain their current physical well-being or focus on a specialized are of health care such as weight loss or stress management.

34.0199 Health-Related Activities, Other. Any instructional program in health-related activities not described above.

35. Interpersonal Skills. A summary of groups of instructional programs that describe how to effectively live and interact with others, social organization, being a congenial friend and companion, establishing courses of action for others, and influencing others to follow.

35.01 Interpersonal Skills. A group of instructional programs that describe how to effectively live and interact with others, social organization, being a congenial friend and companion, establishing courses of action for others, and influencing others to follow.

35.0101 Interpersonal Skills, General. An instructional program that generally describes how to effectively live and interact with others, social organization, being a congenial friend and companion, establishing courses of action for others, and influencing others to follow.

35.0102 Building Human Relationships. An instructional program that describes how to increase one's ability to establish and develop mutually satisfactory ties with other human beings.

35.0103 Perception of Others. An instructional program that describes how to elevate an individual's awareness and capacity to interact with others.

35.0104 Social Role Engineering. An instructional program that describes how to increase one's ability to understand and cope with others in specific roles or groups in society.

35.0199 Interpersonal Skills, Other. Any instructional program in interpersonal skills not described above.

36. Leisure and Recreational Activities. A summary of groups of instructional programs that describe the development of an appreciation for and competency in recreational and leisure-related activities.

36.01 Leisure and Recreational Activities. A group of instructional programs that describe the development of an appreciation for and competency in recreational and leisure-related activities.

36.0101 Leisure and Recreational Activities, General. An instructional program that generally describes the development of an appreciation for and competency in recreational and leisure-related activities.

36.0102 Crafts (Leisure and Recreational). An instructional program that describes how to increase one's skills to fashion objects in a specialized area of handwork.

36.0103 Games. An instructional program that describes how to increase one's ability to engage in specialized activities for amusement or pleasure.

36.0104 Hobbies. An instructional program that describes how to increase one's interest in a specialized area as a recreational pursuit.

36.0105 Housing/Home Maintenance. An instructional program that describes how to improve an individual's capacity to perform home repairs and maintenance as well as to acquire additional skills to construct or remodel a home.

36.0106 Nature Appreciation. An instructional program that describes how to increase one's understanding and knowledge of the natural environment in which we live.

36.0107 Pet Care. An instructional program that describes how to increase one's ability to care for domesticated animals kept for pleasure.

36.0108 Sports/Physical Education. An instructional program that describes how to increase one's ability to engage in a particular recreational activity that generally requires physical exertion.

36.0109 Travel. An instructional program that describes a particular area through an organized trip or tour or increases an individual's ability to undertake a journey.

36.0199 Leisure and Recreational Activities, Other. Any instructional program in leisure and recreational activities not described above.

37. Personal Awareness. A summary of groups of instructional programs that describe a person's self-perception, values, attitudes, beliefs, and emotional responses.

37.01 Personal Awareness. A group of instructional programs that describe a person's self-perception, values, attitudes, beliefs, and emotional responses.

37.0101 Personal Awareness, General. A group of instructional programs that generally describes a person's self-perception, values, attitudes, beliefs, and emotional responses.

37.0102 Coping Skills. An instructional program that describes how to develop individuals' abilities to assess decisions affecting their lives and to make life choices consistent with needs and beliefs.

37.0103 Personal Decisionmaking. An instructional program that describes how to develop individuals' abilities to assess decisions affecting their lives and to make life choices consistent with needs and beliefs.

37.0104 Self-Perception. An instructional program that describes how to develop, clarify, or modify the views a person holds about one's self.

37.0105 Values, Attitudes, and Beliefs. An instructional program that describes how to examine, evaluate, or modify the basic tenets and behavior patterns on the basis of which people conduct their lives.

37.0199 Personal Awareness, Other. Any instructional program in personnel skills not described above.

38. Philosophy and Religion. A summary of groups of instructional programs that describe the

critical examination of the categories for describing reality, the nature and contexts of human experience, the methodology of rational inquiry and criteria of practice (philosophy); and the investigation of organized forms, beliefs, and practices related to eternal principles or transcendent spiritual entities (religion).

38.01 Philosophy. A group of instructional programs (see 38.0101).

38.0101 Philosophy. An instructional program that describes the basic truths and principles of being, knowledge, or conduct in such fields as ethics, metaphysics, and logic.

38.02 Religion. A group of instructional programs (see 38.0201).

38.0201 Religion. An instructional program that describes the origins, histories, organized forms, beliefs, worship, and practices of specific religions.

38.99 Philosophy and Religion, Other. A group of instructional programs in philosophy and religion not described above.

38.9999 Philosophy and Religion, Other. Any instructional program in philosophy and religion not described above.

39. Theology. A summary of groups of instructional programs that describe the practice and application of theological principles and procedures as they apply to the planning, managing, and organizing of religious activities.

39.01 Biblical Languages. A group of instructional programs (see 39.0101).

39.0101 Biblical Languages. An instructional program that describes the Greek and Hebrew languages as used in the Bible.

39.02 Bible Studies. A group of instructional programs (see 39.0201).

39.0201 Bible Studies. An instructional program that describes the ways in which the Bible has been interpreted and utilized in the continuing evolution of religious traditions.

39.03 Missionary Studies. A group of instructional programs (see 39.0301).

39.0301 Missionary Studies. An instructional program that describes the theories and practices of churches throughout the world.

39.04 Religious Education. A group of instructional programs (see 39.0401).

39.0401 Religious Education. An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities in religion.

39.05 Religious Music. A group of instructional programs (see 39.0501).

39.0501 Religious Music. An instructional program that describes the study of the history, theory, composition, and performance of music for religious or sacred purposes.

39.06 Theological Studies. A group of instructional programs (see 39.0601).

39.0601 Theological Studies. An instructional program that describes the relationship of theology to the practice of the ministry and all of its associated aspects.

39.99 Theology, Other. A group of instructional programs in theology not described above.

39.9999 Theology, Other. Any instructional program in theology not described above.

40. Physical Sciences. A summary of groups of instructional programs that describe inanimate objects, processes of matter, energy, and associated phenomena.

40.01 Physical Sciences. A group of instructional programs (see 40.0101).

40.0101 Physical Sciences, General. An instructional program that generally describes the major topics, concepts, processes, and interrelationships of nonliving matter and associated phenomena.

40.02 Astronomy. A group of instructional programs (see 40.0201).

40.0201 Astronomy. An instructional program that describes matter and energy in the universe, including the solar system, stars, galaxies, and nebulae.

40.03 Astrophysics. A group of instructional programs (see 40.0301).

40.0301 Astrophysics. An instructional program that describes the physical and chemical composition of celestial bodies, and of the interactions between matter and radiation within celestial bodies and in interstellar space.

40.04 Atmospheric Sciences and Meteorology. A group of instructional programs (see 40.0401).

40.0401 Atmospheric Sciences and Meteorology. An instructional program that describes the chemical and physical properties of the mass of air surrounding the earth, and weather, including air masses and their motions, tempera- ture, atmospheric pressure, clouds, and precipitation, and their relatively short-term interrelation on local, regional, and global scales.

40.05 Chemistry. A group of instructional programs that describe the micro and macro structure of matter, of the changes matter undergoes, of the energy involved in these changes, and of the models that interpret and the theories and laws that describe these phenomena.

40.0501 Chemistry, General. A group of instructional programs that generally describes the micro and macro structure of matter, of the changes matter undergoes, of the energy involved in these changes, and of the models that interpret and the theories and laws that describe these phenomena.

40.0502 Analytical Chemistry. An instructional program that describes the chemical and physical methods and techniques needed to qualitatively, quantitatively, and often structurally characterize a sample, including the proper procedures for obtaining representative samples for analyses and the statistical procedures for evaluating the precision and accuracy of the results.

40.0503 Inorganic Chemistry. An instructional program that describes all the elements and their compounds, including the isolation, compositions, structures, physical and spectroscopic properties, syntheses, energy relationships, and chemical transformations of these substances, but excluding the hydrocarbons and most of their derivatives.

40.0504 Organic Chemistry. An instructional program that describes the hydrocarbons and their derivatives, either synthetic or produced by living organisms, including the isolation, compositions, structures, physical and spectroscopic properties, syntheses, energy relationships, and chemical transformations of these substances.

40.0505 Pharmaceutical Chemistry. An instructional program that describes the chemical and physical properties of organic and inorganic compounds which have medical or pharmaceutical uses, including the synthesis of organic drugs and inorganic pharmaceutical chemistry.

40.0506 Physical Chemistry. An instructional program that describes the theoretical and experimental investigation of matter, with emphasis on the most fundamental aspects of structure and bonding, and the relationships to the mechanisms and energy changes of transformation.

40.0599 Chemistry, Other. Any instructional program in chemistry not described above.

40.06 Geological Sciences. A group of instructional programs that describe the history of the earth and other celestial bodies; especially as recorded in rocks.

40.0601 Geology. An instructional program that describes the earth and other celestial bodies, including their composition, structure, history, and related changes.

40.0602 Geochemistry. An instructional program that describes the chemical composition, structure, and reaction of earth materials.

40.0603 Geophysics and Seismology. An instructional program that describes the effects of physical phenomena on the earth, earthquakes, and artificially produced vibrations in the earth.

40.0604 Paleontology. An instructional program that describes the fossil evidences of prehistoricl life.

40.0699 Geological Sciences, Other. Any instructional program in geological sciences not described above.

40.07 Miscellaneous Physical Sciences. A group of instructional programs that describe specialized areas of the physical sciences not in the other physical sciences groupings.

40.0701 Metallurgy. An instructional program that describes the chemical and physical properties of metals.

40.0702 Oceanography. An instructional program that describes the ocean and its phenomena, including the physical and chemical properties of water; the topography and composition of the ocean bottom; waves, currents, and tides; and the formation of islands.

40.0703 Earth Science. An instructional program that generally describes the origin and structure of the earth.

40.0799 Miscellaneous Physical Sciences, Other. Any instructional program in miscellaneous physical sciences not described above.

40.08 Physics. A group of instructional programs that describe the physical properties and interactions of matter and energy, including equilibrium, power, wave phenomena, mechanics, heat, electricity, magnetism, sound, light, special relativity, and the particular nature of matter.

40.0801 Physics, General. An instructional program that generally describes the physical properties and interactions of matter and energy, including equilibrium, power, wave phenomena, mechanics, heat, electricity, magnetism, sound, light, special relativity, and the particular nature of matter.

40.0802 Atomic/Molecular Physics. An instructional program that describes the properties and behavior of matter on the smallest scale at which chemical elements can be identified.

40.0806 Nuclear Physics. An instructional program that describes the intrinsic properties of nucelons and the nucelon- nuclear interaction, nuclear models, and nuclear reactions.

40.0807 Optics. An instructional program that describes the nature and propagation of light.

40.0808 Solid State Physics. An instructional program that describes the electrical, magnetic thermal, and optical properties and processes within solids, including theories of conduction of metals, semiconductors, and crystals.

40.0899 Physics, Other. Any instructional program in physics not described above.

40.09 Planetary Science. A group of instructional programs (see 40.0901).

40.0901 Planetary Science. An instructional program that describes the geology of planets other than the earth.

40.99 Physical Sciences, Other. A group of instructional programs in the physical sciences not described above.

40.9999 Physical Sciences, Other. Any instructional program in physical sciences not described above.

41. Science Technologies. A summary of groups of instructional programs that prepare individuals to support and assist various scientists and engineers. Programs stress specialized, practical knowledge related to the mechanical, mathematical, scientific, or technical aspects of various biological, physical, and nuclear sciences.

41.01 Biological Technologies. A group of instructional programs that prepare individuals to support and assist biologists in a variety of settings, including commercial, governmental, educational, or other research, biological or pharmaceutical laboratories.

41.0101 Biological Laboratory Technology. An instructional program that prepares individuals to support biological scientists in commercial, governmental, educational, or other research, biological or pharmaceutical laboratories, or to assist teachers in biological-science classrooms or laboratory situations. Includes instruction in identification of biological and zoological specimens (both microorganisms and macroorganisms) and in preparing or processing specimens for biological-science research or operational procedures.

41.0102 Oceanographic (Biological) Technology. An instructional program that prepares individuals to support marine biologists or oceanographers in collecting or identifying samples of marine organisms, invertebrates, or verte- brates; identifying them biologically; and determining the degree of normalcy or abnormalcy of the specimens. Includes instruction in the biology of marine organisms; processes and materials for collecting, identifying, preserving, dissecting, describing, staining, drawing, and labelling marine organisms found in oceans, lakes, rivers, and stream systems; the development, maintenance, and exploration of fisheries and marine plants; ecology; and the effective functioning on board all type of boats and ships.

41.0199 Biological Technologies, Other. Any instructional program in biological technologies not described above.

41.02 Nuclear Technologies. A group of instructional programs that prepare individuals to support professionals engaged in developing, manufacturing, testing, researching, maintaining, storing, and handling materials in the nuclear science and energy field. Includes instruction in nuclear physics, radioisotopes, nuclear instrumentation, and safety procedures.

41.0201 Nuclear Materials Handling Technology. An instructional program that prepares individuals to support nuclear scientists and engineers in handling nuclear materials and in fabricating, labeling, packaging, and safely transporting nuclear fuel elements and radioactive nuclear power plant wastes. Includes instruction in nuclear radiation, design and fabrication of nuclear fuel elements, detection and intensity measurement of radioactivity, and related safety procedures.

41.0202 Nuclear Power Plant Operation Technology. An instructional program that prepares individuals to become licensed nuclear power plant operators. Includes instruction in radiology, radiation detection, design, control, materials, processes, material balances, equipment, piping systems, and instrumentation in the nuclear power plant, with emphasis on safety procedures and precautions.

41.0203 Nuclear Power Plant Radiation Control Technology. An instructional program that prepares individuals to detect radioactive materials, to measure intensity or level of radiation, to protect workers, and to decontaminate radioactive areas caused by spills, mishandled materials, or other unusual causes. Includes instruction in nuclear and radiation physics, detection and measurement of radioactive materials, mandated codes and permissible levels of radiation, calibration and use of detecting instruments, radiation by-products, and radioisotopes and their control.

41.0204 Radiologic (Physical) Technology. An instructional program that prepares individuals to use radioactive isotopes for industrial, commercial, and research purposes such as determining the flow of underground streams, measuring rainfall in areas remote from human habitation, nondestructive testing and inspection of materials, and continuous measurement of paper or metal thickness.

41.0299 Nuclear Technologies, Other. Any instructional program in nuclear technologies not described above.

41.03 Physical Science Technologies. A group of instructional programs that prepare individuals to support and assist physical scientists and others in related professions. Programs stress specialized, practical knowledge related to the mechanical, scientific, or technical aspects of the physical sciences.

41.0301 Chemical Technology. An instructional program that prepares individuals to support chemists in researching, piloting, controlling, directing and maintaining processing and quality control in the chemical manufacturing field. Includes instruction in material handling, crushing, grinding, and sizing; extraction, distillation, evaporation, drying, absorption, and heat transfer; and assisting in design installation and operation of pilot plants for chemical manufacturing processes.

41.0302 Geological Technology. An instructional program that prepares individuals to support and assist geologists. Programs stress specialized, practical knowledge related to the mechanical scientific, or technical aspects of geology.

41.0303 Metallurgical Technology. An instructional program that prepares individuals to support professional personnel in the production of, quality control of, and research on metals. Includes instruction in conducting tests on the properties of metals; designing and developing pilot and production plans; developing, operating, and altering test procedures, processes, and equipment; and the analysis of data and preparation of reports.

41.0304 Meteorological Technology. An instructional program that prepares individuals to assist meteorologists or to work in the interpretation and presentation of weather information, based on reports from the National Weather Service or other sources. Includes instruction in the theory and applied science of meteorology and weather forecasting; methods, procedures, techniques, and practices used in identifying weather-making atmospheric phenomena; use of instruments for determining wind velocity, rainfall, temperature, and other meteorological conditions; the system for charting weather and the symbols for describing weather conditions; photography and photogrammetry as related to the identification of weather-making phenomena (as shown on weather satellite photographs); and making weather predictions on weather systems charted and observed at a given time.

41.0305 Oceanographic (Physical) Technology. An instructional program that prepares individuals to understand the specialized equipment, instruments, procedures, and techniques determining the depth, temperature, chemical composition, and rate and direction of flow of underwater currents in oceans, seas, or other major bodies of water; the construction and operation of devices used to make measurements of the characteristics of bodies of water, temperature gradients, chemical composition, and dynamics of water movement; and effectively function on board ship.

41.0399 Physical Science Technologies, Other. Any instructional program in physical science technologies not described above.

41.99 Science Technologies, Other. A group of instructional programs in science technologies not described above.

41.9999 Science Technologies, Other. Any instructional program in science technologies not described above.

42. Psychology. A summary of groups of instructional programs that describe the behavior and experience of people.

42.01 Psychology, General. A group of instructional programs (see 42.0101).

42.0101 Psychology, General. An instructional program that describes the behavior and experience of people.

42.02 Clinical Psychology. A group of instructional programs (see 42.0201).

42.0201 Clinical Psychology. An instructional program that describes the application of appropriate methods and theories selected from psychology and other fields as they relate to dealing with the troubled person.

42.03 Cognitive Psychology. A group of instructional programs (see 42.0301).

42.0301 Cognitive Psychology. An instructional program that describes the acquisition and recall of behaviors, and of the processes of learning activities, and of retaining them through time.

42.04 Community Psychology. A group of instructional programs (see 42.0401).

42.0401 Community Psychology. An instructional program that describes the theory and practice of using psychologists, and psychological facts in psychological work not in the academic, school, and clinical contexts, but rather in the broader social community, working with private and public organizations.

42.05 Comparative Psychology. A group of instructional programs (see (42.0501).

42.0501 Comparative Psychology. An instructional program that describes the behavior of members of particular species, and the relationship of the behaviors of the species to their evolutionary origins.

42.06 Counseling Psychology. A group of instructional programs (see (42.0601).

42.0601 Counseling Psychology. An instructional program that describes the theory and practice of systematically selecting the facts and theories of psychology with the intent of advising people about their problems.

42.07 Developmental Psychology. A group of instructional programs (see 42.0701).

42.0701 Developmental Psychology. An instructional program that describes progressive changes in the behavioral process of individuals as a function of aging through the life span, from conception to death.

42.08 Experimental Psychology. A group of instructional programs (see 42.0801).

42.0801 Experimental Psychology. An instructional program that describes the general body of methods, data, and laws that have been derived by scientific research, including theoretical and systematic points of view applicable to the prediction, control, and understanding of the behavior of individual humans and other species.

42.09 Industrial and Organizational Psychology. A group of instructional programs (see 42.0901).

42.0901 Industrial and Organizational Psychology. An instructional program that describes the application of psychological knowledge and methodology to specific work-related problems in industry and government.

42.10 Personality Psychology. A group of instructional programs (see 42.1001).

42.1001 Personality Psychology. An instructional program that describes the unique organization of the fairly permanent characteristics that set the individual apart from other individuals and, at the same time, determine how others respond to that person.

42.11 Physiological Psychology. A group of instructional programs (see 42.1101).

42.1101 Physiological Psychology. An instructional program that describes the processes that determine what actions will occur at a particular time, and the strength or precision with which those actions will occur.

42.12 Psycholinguistics. A group of instructional programs (see 42.1201).

42.1201 Psycholinguistics. An instructional program that describes the psychology of language, including the behavioral processes that enter into the generation of speech and writing, and the understanding of both spoken and written languages.

42.13 Psychometrics. A group of instructional programs (see 42.1301).

42.1301 Psychometrics. An instructional program that describes the mathematical and statistical procedures used in psychological test construction and validation, and of the general problems of the measurement of behavior.

42.14 Psychopharmacology. A group of instructional programs (see 42.1401).

42.1401 Psychopharmacology. An instructional program that describes the changes in behavior that occur as a function of drug-ingestion, and the psychological processes associated with such changes, including altered states of consciousness and addiction.

42.15 Quantitative Psychology. A group of instructional programs (see 42.1501).

42.1501 Quantitative Psychology. An instructional program that describes the application of mathematical and statistical models and methodology in psychology.

42.16 Social Psychology. A group of instructional programs (see 42.1601).

42.1601 Social Psychology. An instructional program that describes the behavior of the individual as a member of a group, and of the processes of associating individuals together.

42.99 Psychology, Other. A group of instructional programs in psychology not described above.

42.9999 Psychology, Other. Any instructional program in psychology not described above.

43. Protective Services. A summary of groups of instructional programs that describe the principles and procedures for providing police, fire, and other safety services, and for managing penal institutions.

43.01 Criminal Justice. A group of instructional programs that describe the principles and procedures of developing, administrating, and managing correctional, law enforcement, and forensic services.

43.0101 Correctional Administration. An instructional program that describes the theories and practices of structuring, managing, directing, and controlling agencies and organizations whose purpose it is to provide safety and correctional services.

43.0102 Corrections. An instructional program that describes the theories, principles, and techniques of developing, administrating, and managing services for the incarceration, behavior modification, rehabilitation, and returning of legal offenders to society.

43.0103 Criminal Justice Administration. An instructional program that describes the theories and practices of structuring, managing, directing, and controlling criminal justice agencies (e.g., the various judicial and administrative court systems).

43.0104 Criminal Justice Studies. An instructional program that generally describes the principles and procedures of developing, administrating, and managing correctional, law enforcement, and forensic services.

43.0105 Criminal Justice Technology. An instructional program that prepares individuals to work in a law enforcement agency, crime laboratory, mobile unit dealing with physical evidence, juvenile court, or correctional institution. Includes instruction in patrol and investigative activities; traffic control; using polygraph equipment; procedures for initial contact with the public in such matters as obtaining information, preparing reports, and testifying in court; techniques for collection, preparation, and transportation of physical evidence; methods of crime prevention; and methods for investigation and referral of neglected dependent children, delinquents, and youthful offenders.

43.0106 Forensic Studies. An instructional program that describes the theories, principles, and techniques of developing, administrating, and managing services for relating and applying medical facts to legal problems.

43.0107 Law Enforcement. An instructional program that describes the theories, principles, and techniques of developing, administrating, and managing services for the safety and protection of people and property.

43.0108 Law Enforcement Administration. An instructional program that describes the theories and practices of structuring, managing, directing, and controlling agencies whose purposes are to provide law enforcement.

43.0109 Security Services. An instructional program that prepares individuals to police private property to prevent thievery, malicious damage, and dishonesty among employees or patrons, and to maintain order.

43.0199 Criminal Justice, Other. Any instructional program in criminal justice not described above.

43.02 Fire Protection. A group of instructional programs that describe the theories, principles, and techniques of developing, administrating, and managing services for fire prevention, fire fighting, and rescue.

43.0201 Fire Control and Safety Technology. An instructional program that prepares individuals to function as a fire control, prevention, and safety specialist. Includes instruction in structional design and materials; meteorological factors impinging upon fire situations; chemistry of combustion; techniques for coping with fires; procedures for handling hazardous materials (such as petroleum products, and other volatile, explosive, or corrosive materials) either routinely or in an accident situation; methods for inspection of equipment and its proper use; and methods for safety inspections of public and private property.

43.0202 Fire Protection Administration. An instructional program that describes the theories, principles, and techniques of developing, administrating, and managing services for fire prevention, fire fighting, and rescue.

43.0203 Firefighting. An instructional program that prepares individuals to fight fires, and control the outbreak of fire. Includes instruction in fire department organization; the use of water and other materials in firefighting and various kinds of equipment such as extinguishers, pumps, hoses, ropes, ladders, gas masks, hydrants, and standpipe and sprinkler systems; entry and rescue and salvage practices and equipment; and fire and arson inspection and investigation techniques.

43.0299 Fire Protection, Other. Any instructional program in fire protection not described above.

43.99 Protective Services, Other. A group of instructional programs in protective services not described above.

43.9999 Protective Services, Other. Any instructional program in protective services not described above.

44. Public Affairs. A summary of groups of instructional programs that describe the formulation, implementation, administration, evaluation, and management of public policies and programs, including those services which are directed toward the betterment of economic and social conditions.

44.01 Public Affairs, General. A group of instructional programs (see 44.0101).

44.0101 Public Affairs, General. An instructional program that generally describes the formulation, implementation, administration, evaluation, and management of public policies and programs, including those services which are directed toward the betterment of economic and social conditions.

44.02 Community Services. A group of instructional programs (see 44.0201).

44.0201 Community Services. An instructional program that describes the theories, methods, and techniques of combining school and community resources to provide information, instruction, and recreation to all members of a community.

44.03 International Public Service. A group of instructional programs (see 44.0301).

44.0301 International Public Service. An instructional program that describes the principles and theories underlying the structure and processes of major international organizations, such as the United Nations and the Organization of American States.

44.04 Public Administration. A group of instructional programs (see 44.0401).

44.0401 Public Administration. An instructional program that describes the knowledge, skills, values, and behaviors involved in the formation of public policies and the management of public services.

44.05 Public Policy Studies. A group of instructional programs (see 44.0501).

44.0501 Public Policy Studies. An instructional program that describes the principles and techniques by which systematic judgments and evaluative assessments are made with respect to public policy.

44.06 Public Works. A group of instructional programs that describe the role of the government in constructing, maintaining and providing structures and utilities for use by the general public.

44.0601 Public Sanitation. An instructional program that describes the theories, techniques, planning, and development of provisions for the maintenance of the health and welfare of the general public.

44.0602 Public Transportation. An instructional program that describes the theories, techniques, planning, and development of facilities and systems for transporting people and goods.

44.0603 Public Utilities. An instructional program that describes the theories, techniques, planning, and development of services such as electricity, waste removal, water, power, and transportation, which are owned and operated, or regulated by governmental agencies, on behalf of the general public.

44.0604 Public Works, Other. Any instructional program in public works not described above.

44.07 Social Work. A group of instructional programs that describe the social interventions that enhance, conserve, and augment the means by which persons, individually or collectively, can solve disruptions in their social existence.

44.0701 Social Work, General. An instructional program that generally describes the social interventions that enhance, conserve, and augment the means by which persons, individually or collectively, can solve disruptions in their social existence.

44.0702 Medical Social Work. An instructional program that describes how to remedy social problems that relate specifically to health conditions, such as mental health and mental retardation, physical health, chemical dependency, and other conditions that generally occur in health care settings.

44.0799 Social Work, Other. Any instructional program in social work not described above.

44.99 Public Affairs, Other. A group of instructional programs in public affairs not described above.

44.9999 Public Affairs, Other. Any instructional program in public affairs not described above.

45. Social Sciences. A summary of groups of instructional programs that describe the substantiative portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.

45.01 Social Sciences, General. A group of instructional programs (see 45.0101).

45.0501 Social Sciences, General. An instructional program that generally describes the major principles and perspectives of social sciences.

45.02 Anthropology. A group of instructional programs (see 45.0201).

45.0201 Anthropology. An instructional program that describes the historic and prehistoric origins of man, his physical and cultural development, racial characteristics, social customs, and beliefs.

45.03 Archeology. A group of instructional programs (see 45.0301).

45.0301 Archeology. An instructional program that describes historic and prehistoric peoples and their cultures through the scientific analysis of their artifacts, inscriptions, monuments, and other remains.

45.0302 Archeological Technology. An instructional program that prepares individuals to support and assist archeologists. Programs stress specialized, practical knowledge related to site location and recording, excavation, artifact cataloging and elementary analysis for cultural resource management.

45.04 Criminology. A group of instructional programs (see 45.0401).

45.0401 Criminology. An instructional program that describes the causes of crime and the methods of detecting and dealing with crime and the criminal, including crime statistics, theories of punishment, and the role of law enforcement in society as an agent for the prevention and treatment of crime.

45.05 Demography. A group of instructional programs (see 45.0501).

45.0501 Demography. An instructional program that describes the vital social statistics, including births, deaths, diseases, marriages, and education rates of populations.

45.06 Economics. A group of instructional programs (see 45.0601).

45.0601 Economics. An instructional program that describes the transformation of limited resources into goods and services which, upon distribution, are again transformed by consumption to yield satisfaction of human wants.

45.07 Geography. A group of instructional programs (see 45.0701).

45.0701 Geography. An instructional program that describes the earth and its life; the land, sea, and air; and the distribution of plant and animal life, human beings, and industries.

45.08 History. A group of instructional programs (see 45.0801).

45.0801 History. An instructional program that describes the past, including the recording, gathering, criticizing, synthesizing, and interpreting evidence about past events.

45.09 International Relations. A group of instructional programs (see 45.0901).

45.0901 International Relations. An instructional program that describes the agencies, operations, and principles involved in communication and interaction among nations, with emphasis upon the relationship between political subdivisions and governments.

45.10 Political Science and Government. A group of instructional programs (see 45.1001).

45.1001 Political Science and Government. An instructional program that describes and analyzes political institutions and processes, including the origin, development, geographical units, forms, sources of authority, powers, purposes, functions, and operations of government

45.11 Sociology. A group of instructional programs (see 45.1101).

45.1101 Sociology. An instructional program that describes the human society, social institutions, and social relationships, including the development, purposes, structures, and functions of human groups.

45.12 Urban Studies. A group of instructional programs (see 45.1201).

45.1201 Urban Studies. An instructional program that describes the history, society, politics, culture, and economics of urban areas.

45.99 Social Sciences, Other. A group instructional programs in social sciences not described above.

45.9999 Social Sciences, Other. Any instructional program in social sciences not described above.

46. Construction Trades. A summary of groups of instructional programs that prepare individuals to erect, install, maintain, and repair buildings, highways, airports, missile sites, and other structures using materials such as metal, wood, stone, brick, glass, concrete, and

composition substances. Includes instruction in cost estimating; cutting, fastening, and fitting various materials; the use of hand and power tools; and in following technical specifications and blueprints.

46.01 Brickmasonry, Stonemasonry, and Tile Setting. A group of instructional programs that prepare individuals to lay brick, concrete block, hard tile, marble and related materials, using trowels, levels, hammers, chisels, and other handtools.

46.0101 Brickmasonry, Stonemasonry, and Tile Setting, General. An instructional program that generally prepares individuals to lay brick, concrete block, hard tile, marble and related materials, using trowels, levels, hammers, chisels, and other handtools.

46.0102 Brick, Block, and Stonemasonry. An instructional program that prepares individuals to lay bricks and/or blocks. Includes instruction in laying out and/or spacing bonds; determining vertical and horizontal alignment of courses using gauges, plumb-bobs, and levels; and cutting, notching, and shaping blocks, bricks, terra-cotta veneer, glass, and stone to construct or repair walls, partitions, arches, sewers, and fireplaces.

46.0103 Tile Setting. An instructional program that prepares individuals to apply tile to walls, floors, ceilings, and roof decks. Includes instruction in fastening lath to walls; spreading plaster and/or concrete; leveling; spreading mastic or adhesive base; and in cutting, shaping, and positioning tile.

46.0199 Brickmasonry, Stonemasonry, and Tile Setting, Other. Any instructional program in brickmasonry, stonemasonry, and tile setting not described above.

46.02 Carpentry. A group of instructional programs (see 46.0201).

46.0201 Carpentry. An instructional program that prepares individuals to lay out, fabricate, erect, install, and repair structures and fixtures, using hand and power tools. Includes instruction in common systems of framing, construction materials, estimating, and blueprint reading.

46.03 Electrical and Power Transmission Installation. A group of instructional programs that prepare individuals to install, operate, maintain, and repair residential, commercial, and industrial electrical systems, and the power lines that transmit electricity from its source of generation to its place of consumption.

46.0301 Electrical and Power Transmission Installation, General. An instructional program that generally prepares individuals to install, operate, maintain, and repair residential, commercial, and industrial electrical systems, and the power lines that transmit electricity from its source of generation to its place of consumption.

46.0302 Electrician. An instructional program that prepares individuals to install, operate, maintain, and repair electrically-energized systems such as residential, commercial, and industrial electric-power wiring, and D.C. and A.C. motors, controls, and electrical-distri- bution panels. Includes instruction in the use of test equipment.

46.0303 Lineworker. An instructional program that prepares individuals to install, operate, maintain local, long- distance, and rural lines; erect and construct pole and tower lines; and install underground lines.

46.0399 Electrical and Power Transmission Installation, Other. Any instructional program in electrical and power transmission installation not described above.

46.04 Miscellaneous Construction Trades and Property Maintenance. A group of instructional programs that prepare individuals for construction trades other than those described under other groupings in the construction trades category.

46.0401 Building and Property Maintenance. An instructional program that prepares individuals to keep a building functioning; and service a variety of structures including commercial and industrial buildings and mobile homes. Includes instruction in the basic maintenance and repair skills related to the air conditioning, heating, plumbing, electrical, and other mechanical systems.

46.0402 Concrete Placing and Finishing. An instructional program that prepares individuals to construct forms; cut, erect, and fasten steel reinforcing bars wire mesh; compact concrete by hand or with pneumatic vibrators; and finish exposed surfaces during hardening and after forms have been removed. Includes instruction in the use of chemical additives, and in hand and power concrete-handling equipment.

46.0403 Construction Inspection. An instructional program that prepares individuals to inspect and oversee construction of bridges, buildings, dams, highways, and other types of construction work to ensure that procedures and materials comply with plans and specifications.

46.0404 Drywall Installation. An instructional program that prepares individuals to install wallboard, plasterboard, or other interior surfaces in structures.

46.0405 Floor Covering Installation. An instructional program that prepares individuals to test and repair subfloors and to install resilient tile, sheet goods, or carpeting. Includes instruction installing underlayments; cutting, fitting, and gluing lining; tacking, stapling, or taping padding; planning, laying out, fitting and installing resilient flooring by gluing or loose-lay methods; installing cover bases, self covering and carpet fasteners; trimming and seaming carpet; and installing stair treads, risers, and countertops.

46.0406 Glazing. An instructional program that prepares individuals to prepare, fit, and install glass in structural openings such as windows, doors, and partitions or in display cases and table tops.

46.0407 Insulation Installation. An instructional program that prepares individuals to install batt, blanket, board, loose fill, and other forms of insulation in residential, commercial, and industrial buildings in order to heat and cool interiors in energy-efficient ways.

46.0408 Painting and Decorating. An instructional program that prepares individuals to finish exterior and interior surfaces by applying protective or decorative coating materials, such as paint, lacquer, and wallpaper. Includes instruction in scraping, burning, or sanding surfaces; making, mixing, and matching paint colors, applying coating with brush, roller, or spray gun; and cutting, pasting, and hanging wallpaper.

46.0409 Plastering. An instructional program that prepares individuals to apply plaster, stucco, and similar materials to interior and exterior surfaces. Includes instruction in lathing and in surface preparation, smoothing, and finishing.

46.0410 Roofing. An instructional program that prepares individuals to cover roofs and exterior walls of struc- tures with waterproofing or insulating materials, such as asphalt, aluminum, slate, wood, and related composition materials.

46.0499 Miscellaneous Construction Trades and Property Maintenance, Other. Any instructional program in miscellaneous construction trades not described above.

46.05 Plumbing, Pipefitting, and Steamfitting. A group of instructional programs that prepare individuals to lay out, assemble, install, and maintain piping fixtures, and piping systems for steam, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems. Includes instruction in material selection and use of tools to cut, bend, join, and weld pipes.

46.0501 Plumbing, Pipefitting, and Steamfitting, General. An instructional program that generally prepares individuals to lay out, assemble, install, and maintain piping fixtures, and piping systems for steam, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems. Includes instruction in material selection and use of tools to cut, bend, join, and weld pipes.

46.0502 Pipefitting and Steamfitting. An instructional program that prepares individuals to lay out, fabricate, assemble, install, and maintain piping and piping systems, fixtures, and equipment for steam, hot water, heating, cooling, lubricating, sprinkling, and industrial processing systems, on the basis of knowledge of systems operation and the study of building plans or working drawings.

46.0503 Plumbing. An instructional program that prepares individuals to assemble, install, and repair pipes, fittings, and fixtures of heating, water, and drainage systems, according to specifications and plumbing codes.

46.0599 Plumbing, Pipefitting, and Steamfitting, Other. Any instructional program in plumbing, pipefitting, and steamfitting not described above.

46.99 Construction Trades, Other. A group of instructional programs in construction trades not described above.

46.9999 Construction Trades, Other. Any instructional program in construction trades not described above.

47. Mechanics and Repairers. A summary of groups of instructional programs that prepare individuals in the adjustment, maintenance, part replacement, and repair of tools, equipment, and machines.

47.01 Electrical and Electronics Equipment Repair. A group of instructional programs that prepare individuals to operate, maintain, and repair business machines, communications equipment, major and small appliances, commercial vending machines, and related equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.

47.0101 Electrical and Electronics Equipment Repair, General. An instructional program that generally prepares individuals to operate, maintain, and repair business machines, communications equipment, major and small appliances, commercial vending machines, and related equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.

47.0102 Business Machine Repair. An instructional program that prepares individuals to maintain and repair a variety of offices machines, such as electric-memory typewriters, word processing and dictation machines, calculators, data-processing equipment, duplicating machines, and mailing machines. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of business machines.

47.0103 Communication Electronics. An instructional program that prepares individuals to assemble, install, operate, maintain, and repair one- and two-way communications equipment and systems, such as TV cable systems, mobile communication devices (phones and radios), fiber optics, and other electronic communication devices, or systems. Includes instruction in using actual equipment or educational trainers, in various types of equipment, motors, mechanical devices, power suppliers, amplifiers, and digital circuitry; the use of testing equipment; and Federal Communications Commission (FCC) licensing requirements.

47.0104 Computer Electronics. An instructional program that prepares individuals to assemble, install, operate, maintain, and repair computers and digital-control instruments. Includes instruction in power supplies, number systems, gating logic A-to-D and D-to-A counters, displays, timing circuitry, memory structure, address modes, buffers and registers, microprocessor design, peripheral equipment, programming, and interfacing, including the use of testing equipment and various computer electronic applications.

47.0105 Industrial Electronics. An instructional program that prepares individuals to assemble, install, operate, maintain, and repair electrical/electronic equipment used in industry and manufacturing. Includes instruction in using actual equipment, in various types of equipment such as power supplied, amplifiers, motors, controls, digital and computer circuitry, synchro and servomechanisms, mechanical-power-transfer systems, pneumatics, hydraulic systems, and three-phase A.C., electronic wave-shaping, and control circuitry.

47.0106 Major Appliance Repair. An instructional program that prepares individuals to repair, install, service major gas, electric, and microwave consumer appliances such as stoves, refrigerators, dryers, water heaters, washers, dishwashers, and commercial units such as ice makers and coffee makers.

47.0107 Motor Repair. An instructional program that prepares individuals to assemble, install, test, maintain, and repair electric motors, generators, transformers, and related equipment.

47.0108 Small Appliance Repair. An instructional program that prepares individuals to repair, maintain, and service small appliances such as irons, toasters, waste disposal units, vacuum cleaners, coffee makers, and dehumidifiers.

47.0109 Vending and Recreational Machine Repair. An instructional program that prepares individuals to install, service, adjust, and repair coin vending and recreational machines; verify by observation that machines are functioning properly; perform tests on ice-making, refrigeration, carbonation, and evaporation systems; dispensing, electrical and coin handling systems; and identify and correct malfunctions, including replacing worn or defective electrical and/or mechanical parts using hand and power tools. Includes instruction in refinishing units, transporting units to location, and connecting water or electric lines.

47.0199 Electrical and Electronics Equipment Repair, Other. Any instructional program in electrical and electronics equipment repair not described above.

47.02 Heating, Air Conditioning, and Refrigeration Mechanics. A group of instructional programs that prepare individuals to install, repair, and maintain the operating condition of heating, air conditioning, and refrigeration systems.

47.0201 Heating, Air Conditioning, and Refrigeration Mechanics, General. An instructional program that generally prepares individuals to install, repair, and maintain the operating condition of heating, air conditioning, and refrigeration systems.

47.0202 Cooling and Refrigeration. An instructional program that prepares individuals to install, operate, test and service cooling and refrigeration systems. Includes instruction in various types of systems, control devices, thermic units, and refrigerators.

47.0203 Heating and Air Conditioning. An instructional program that prepares individuals to install, operate, test, repair and maintain commercial and domestic heating and air conditioning systems.

47.0299 Heating, Air Conditioning, and Refrigeration Mechanics, Other. Any instructional program in heating, air conditioning, and refrigeration systems not described above.

47.03 Industrial Equipment Maintenance and Repair. A group of instructional programs that prepare individuals to operate, maintain, and repair heavy-duty equipment such as bulldozers, cranes, graders, tractors, trailers, concrete mixers, crawler-mounted shovels, draglines, and compressors.

47.0301 Industrial Equipment Maintenance and Repair, General. An instructional program that generally prepares individuals to operate, maintain, and repair heavy-duty equipment such as bulldozers, cranes, graders, tractors, trailers, concrete mixers, crawler-mounted shovels, draglines, and compressors.

47.0302 Heavy Equipment Maintenance and Repair. An instructional program that prepares individuals in the field maintenance of heavy equipment, and in general maintenance and overhaul of such equipment. Includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines, and in techniques of welding and brazing.

47.0303 Industrial Machinery Maintenance and Repair. An instructional program that prepares individuals to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

47.0304 Mine Equipment Maintenance and Repair. An instructional program that prepares individuals to maintain, repair, and adjust mining equipment and machinery such as continuous mines, shuttle cars, air compressors, and haulage equipment. Includes instruction in testing, adjusting, and repairing pneumatic and hydraulic systems; attaching supplemental equipment such as hoses, valves, gates, vibration equipment, and mechanical, electrical, or electronic control devices; and repairing, maintaining, and installing electric motors, switchboards, controls, fans, and starting devices.

47.0305 Oil and Gas Drilling Equipment Operation and Maintenance. An instructional program that prepares individuals to engage in oil- and gas-well drilling activities. Includes instruction in drilling, transmission, and pumping of liquids and gases; rigging; and maintenance of drilling equipment.

47.0399 Industrial Equipment Maintenance and Repair, Other. Any instructional program in industrial equipment maintenance and repair not described above.

47.04 Miscellaneous Mechanics and Repair. A group of instructional programs that prepare individuals for mechanic and repairer occupations other than those described under the headings of electrical and electronics equipment repair; heating, air conditioning, and refrigeration mechanics; industrial equipment maintenance and repair; stationery energy sources; and vehicle and mobile equipment mechanics and repair.

47.0401 Electromechanical, Hydraulic, and Pneumatic Instrument Repair. An instructional program that prepares individuals to maintain and repair various types of meters, measuring devices, and control devices such as heating and air conditioning controls; dial pressure gauges; scales and balances; electrical controlling measuring, and recording devices; and optical, aeronautical, and navigational instruments. Includes instruction in diagnosing malfunctions; disassembling, repairing, and/or replacing faulty parts; and cleaning, assembling, and adjusting instruments using special bench tools, hand tools, and other meters and standards.

47.0402 Gunsmithing. An instructional program that prepares individuals to repair and modify firearms according to blueprints or customer specifications, using specialized hand tools and machines. Includes instruction in installing such parts as metallic or optical sights, pistol grips, recoil pads, and decorative pieces and in reboring, rebroaching, grinding, polishing, bluing, fabricating, and finishing wooden stocks. Programs may prepare individuals to design new guns and to calculate detailed firearm specifications, such as bullet-flight arc and sight position.

47.0403 Locksmithing and Safe Repair. An instructional program that prepares individuals to repair and open locks, make keys, change lock and safe combinations, and install and repair safes.

47.0404 Musical Instrument Repair. An instructional program that prepares individuals to maintain, repair, and tune acoustic and electric musical instruments. Includes instruction in amplification systems of electric instruments, techniques of cleaning, and methods of tuning musical instruments.

47.0405 Operation, Maintenance, and Repair of Audio-Visual Equipment. An instructional program that prepares individuals to operate and repair overhead projectors, slide projectors, silent and sound motion picture projectors, video cameras, video recorders, sound- reproduction equipment and sound-producing equipment.

47.0407 Sporting Goods Equipment Repair. An instructional program that prepares individuals to repair or replace faulty parts of sporting and athletic equipment such as fishing tackle, tennis rackets, golf equipment, and archery equipment. Includes instruction in regluing and rewinding shafts of bows and arrows; restringing tennis rackets; working with metal parts and using metal working tools; and researching specialized types of sporting and athletic equipment.

47.0408 Watch Repair. An instructional program that prepares individuals to make, maintain, and repair clocks, watches, chronometers, and other types of time-measuring devices by diagnosing malfunctions; disassembling, repairing, and/or replacing faulty parts; cleaning, assembling, and adjusting parts; and replacing straps, bands, crystals, crowns, and hands. Includes instruction in the use of various bench and hand tools such as lathes, staking tools, loupes, truing calipers, timing machines, pallet warmers, and other grinding, drilling, and polishing tools. Also instruction in the use of various materials such as metals, plastic, chemicals, oils, waxes, and abrasives.

47.0499 Miscellaneous Mechanics and Repairers, Other. Any instructional program in miscellaneous mechanics and repairers not described above.

47.05 Stationary Energy Sources. A group of instructional programs that prepare individuals to install, operate, and maintain large power sources for such purposes as generating electricity, pumping, and heating.

47.0501 Stationary Energy Sources, General. An instructional program that prepare individuals to install, operate, and maintain large power sources for such purposes as generating electricity, pumping, and heating.

47.0502 Conventional Electrical Power Generation. An instructional program that prepares individuals to install, operate, and maintain electric-power generating stations, and to operate and maintain gas, oil, and coal furnaces, boilers, and electric generators; steam, gas, or hydro-turbines; and diesel engines. Includes instruction in special instrumentation, controls, and emergency and safety procedures.

47.0504 Pumping Plants. An instructional program that prepares individuals to install, operate, and maintain electric, diesel, or gas turbine-pumping installations that handle liquids, gases, or solids for delivery through pipelines or for local use. Includes instruction in the operation and maintenance of pipeline motors, engines, turbines, instruments, and controls.

47.0599 Stationary Energy Sources, Other. Any instructional program in stationary energy sources not described above.

47.06 Vehicle and Mobile Equipment Mechanics and Repairers. A group of instructional programs that prepare individuals to maintain and repair aircraft; automobiles; diesel engines in vehicles such as buses, ships, trucks, railroad locomotives, and construction equipment; stationary diesel engines in electrical generators; and small engines in mobile equipment such as lawnmowers and rotary tillers.

47.0601 Vehicle and Mobile Equipment Mechanics and Repairers, General. An instructional program that prepares individuals to maintain and repair aircraft; automobiles; diesel engines in vehicles such as buses, ships, trucks, railroad locomotives, and construction equipment; stationary diesel engines in electrical generators; and small engines in mobile equipment such as lawnmowers and rotary tillers.

47.0603 Automotive Body Repair. An instructional program that prepare individuals in automobile body and fender repair. Includes instruction in body preparation for painting and finishing.

47.0604 Automotive Mechanics. An instructional program that prepares individuals to engage in the servicing and maintenance of all types of automobiles. Includes instruction in the diagnosis of malfunctions in and repair of engines; fuel, electrical, cooling, and brake systems; and drive train and suspension systems. Also instruction is given in the adjustment and repair of individual components and systems such as radiators, transmissions, and carburetors.

47.0605 Diesel Engine Mechanics. An instructional program that prepares individuals to repair diesel engines in vehicles such as buses, ships, trucks, railroad locomotives, and construction equipment, and to repair stationary diesel engines in electrical generators and related equipment. Includes instruction in diagnosing malfunctions; disassembling engines and replacing parts; and in repairing and adjusting fuel-injection systems, oil and water pumps, generators, governors, auxiliary and accompanying power units, controls, and transmissions, using a variety of tools and testing and diagnostic equipment.

47.0606 Small Engine Repair. An instructional program that prepares individuals to maintain and repair small internal-combustion engines used on portable power equipment such as lawnmowers, chain saws, rotary tillers, motorcycles, and snowmobiles.

47.0607 Aircraft Mechanics, Airframe. An instructional program that prepares individuals to inspect, repair and maintain all airplane parts other than engines, propellers, and instruments. Instruction includes layout and fabrication of sheet metals, fabric skin, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units. The program is designed to meet the Federal Aviation Administration's requirements for licensing as an airframe mechanic.

47.0608 Aircraft Mechanics, Powerplant. An instructional program that prepares individuals to inspect, repair and maintain all types of aircraft powerplants and controls. Instruction includes engine inspection and maintenance lubrication and cooling; electrical and ignition systems; carburetion, fuels and fuel systems; and propeller assembly. The program is designed to meet the Federal Aviation Administration's requirements for licensing as a powerplant mechanic.

47.0699 Vehicle and Mobile Equipment Mechanics and Repairers, Other. Any instructional program in vehicle and mobile equipment mechanics and repairers not described above.

47.99 Mechanics and Repairers, Other. A group of instructional programs in mechanics and repairers not described above.

47.9999 Mechanics and Repairers, Other. Any instructional program in mechanics and repairs not described above.

48. Precision Production. A summary of groups of instructional programs that prepare individuals to produce precision goods and materials by hand or machine. In many instances, instructional activities are designed to cultivate an ability to interpret detailed instructions and specifications, and to produce or manufacture goods at low tolerances.

48.01 Drafting. A group of instructional programs that prepare individuals to plan, prepare, and interpret mechanical, architectural, structural, pneumatic, marine, electric/electronic, topographical, and other sketches; to use reproduction materials, equipment, and processes, to develop, plan, and process charts and drawings; to develop models; and to prepare reports and data sheets for writing specifications; and to use computer assistance design equipment and materials.

48.0101 Drafting, General. An instructional program that generally prepares individuals to plan, prepare, and interpret mechanical, architectural, structural, pneumatic, marine, electric/electronic, topographical, and other sketches; to use reproduction materials, equipment, and processes, to develop, plan, and process charts and drawings; to develop models; and to prepare reports and data sheets for writing specifications; and to use computer assistance design equipment and materials.

48.0102 Architectural Drafting. An instructional program that generally prepares individuals to support architects and/or architectural engineers in developing plans for buildings or other structures, using a variety of building materials; in creating layouts and designs in keeping with building codes, zoning laws, ordinances, and other regulations; in styling and planning in keeping within cost limitations and client preferences, and in the use of computer assistance design equipment and materials.

48.0103 Civil/Structural Drafting. An instructional program that prepares individuals to develop detailed construction drawings, topographical profiles, and related maps and specifications sheets for use in the planning and construction of highways, river and harbor improvement; flood-control structures, drainage structures, sanitation plants, and other structures. Includes instruction in computing the volume of excavation and fill tonnage, in preparing graphs and hauling diagrams for use in earth-moving operations, and in the use of computer assistance design equipment and materials.

48.0104 Electrical/Electronics Drafting. An instructional program that prepares individuals to develop working drawings and wiring diagrams used by construction crews and repairmen to install and prepare electrical equipment, power plants, industrial establishments, and commercial or domestic buildings. Includes instruction in drafting the wiring and schematic diagrams and layout drawings used to manufacture, assemble, install, and repair electrical/electronic equipment such as television cameras, radio transmitters, receivers, audioamplifiers, computers, and related equipment, and in the use of computer assistance design equipment and materials.

48.0105 Mechanical Drafting. An instructional program that prepares individuals to assist engineers in the development of detailed working drawings and related specifications for mechanical devices and machinery. Includes instruction in sketching rough layouts; drafting detailed multiview drawings; computing magnitude, direction, and point of application of tension, compression, and bending factors; compiling and analyzing text data to determine design effects on machinery in relation to temperature, pressure, speed, horsepower, and fuel consumption; producing drawings that indicate dimensions, tolerances, fasteners, joining requirements, and other engineering data, and in the use of computer assistance design equipment and materials.

48.0199 Drafting, Other. Any instructional program in drafting not described above.

48.02 Graphic and Printing Communications. A group of instructional programs that prepare individuals to design and execute layouts and illustrations for advertising displays and instructional manuals. Includes instruction in all phases of offset printing, layout, composition, pressmark and binding, flexography, lithography, photoengraving, and other graphic arts related to the printing industry.

48.0201 Graphic and Printing Communications, General. An instructional program that generally prepares individuals in the approaches and techniques used in the various graphic and printing communications specialties.

48.0202 Bookbinding. An instructional program that generally prepares individuals to gather pages, forms, and related materials for assembly into books or pamphlets. Includes instruction in binding and repairing books and documents.

48.0203 Commercial Art. An instructional program that generally prepares individuals to design and execute layouts and make illustrations for advertising displays and instructional manuals. Includes instruction in the preparation of copy; lettering, poster, package, and product design; fashion illustration; silk screening; air brushing; and inks and color dynamics.

48.0204 Commercial Photography. An instructional program that prepares individuals to use cameras and laboratory film-processing techniques. Includes instruction in composition and color dynamics; contact printing; enlarging, developing film; use of air brushes, cameras, meters, and other photographic equipment; portrait, commercial, and industry photography; processing microfilm, and preparing copy for printing or other graphic-arts processing.

48.0205 Typesetting, Make-up, and Composition. An instructional program that prepares individuals to lay out, compose, and make-up typesetting and typecast, by hand and by machine.

48.0206 Lithography, Photography, and Platemaking. An instructional program that prepares individuals to engage in activities concerned with lithography, lithographic photography, stripping, and related platemaking processes.

48.0207 Photographic Laboratory and Darkroom. An instructional program that prepares individuals to develop and print photography still - or motion picture film; control resultant prints; touchup negatives; and finish, color, restore, and copy prints.

48.0208 Printing Press Operations. An instructional program that prepares individuals to make ready, operate, and maintain printing presses.

48.0209 Silk Screen Making and Printing. An instructional program that prepares individuals to make silk screens and to perform silk screen printing operations.

48.0210 Photoengraving. An instructional program that prepares individuals to photograph illustrations and other copy that cannot be set in type, to develop negatives, and to prepare photosensitized metal plates for use in printing.

48.0299 Graphic and Printing Communications, Other. Any instructional program in graphic and printing communications not described above.

48.03 Leatherworking and Upholstering. A group of instructional programs that prepare individuals to fabricate and repair all types of upholstery and leather goods.

48.0301 Leatherworking and Upholstering, General. An instructional program that generally prepares individuals to fabricate and repair all types of upholstery and leather goods.

48.0302 Saddlemaking and Repair. An instructional program that prepares individuals to construct and repair saddles. Includes instruction in cutting, assembling, and joining leather parts and other materials according to specification of saddle size, type, color, or grain of leather, using hand and power stitching machines; positioning covering and cushioning materials such as cotton batting, foam rubber, or mohair; attaching accessories and ornamentation; applying paint and liquid dressings for flossy finish; and cutting and stamping leather surfaces with lettering or decoration.

48.0303 Upholstering. An instructional program that prepares individuals to engage in all aspects of upholstering furniture, automobile seats, caskets, mattresses, and bedsprings. Includes instruction in installing, repairing, arranging, and securing springs, filler, padding, and covering material of mattresses and bedsprings; cutting, sewing, and trimming; cushion filling, tufting, and buttoning; and wood refinishing.

48.0304 Shoe and Boot Repair. An instructional program that prepares individuals to repair all types of footwear, including replacement and mending of worn parts; repairing orthopedic footwear, refinishing and dyeing leather; and repairing other leather goods such as handbags, belts, and luggage.

48.0399 Leatherworking and Upholstering, Other. Any instructional program in leatherworking and upholstering not described above.

48.04 Precision Food Production. A group of instructional programs that prepare individuals to perform slaughtering and butchering operations in a slaughtering and meat packing establishing, or to cut, trim, and prepare carcasses for wholesale or retail sale.

48.0401 Precision Food Production, General. An instructional program that prepares individuals to perform slaughtering and butchering operations in a slaughtering and meat packing establishing, or to cut, trim, and prepare carcasses for wholesale or retail sale.

------ Chef/Cook (see 20.0403).

48.0402 Meatcutting. An instructional program that prepares individuals to cut, trim, and prepare carcasses and consumer-sized portions of meat for sale in wholesale, retail, or food-service establishments. Includes instruction in the use of meat-cutting tools; identification of and cutting techniques for different cuts of meat; dressing poultry; processing fish; counter display; and refrigeration of meats, poultry, and fish.

48.0403 Slaughtering and Butchering. An instructional program that prepares individuals to perform slaughtering and butchering operations in a slaughtering and meat packing establishment. Includes instruction in stunning and slaughtering; skinning, trimming, and washing; cutting standard cuts of meats such as chucks, hams, loins, plates, rounds, and shanks in preparation for marketing; cleaning and salting hides of cattle, sheep, and hogs; preparing, smoking, and wrapping meats; and making sausage.

48.0499 Precision Food Production, Other. Any instructional program in precision food production not described above.

48.05 Precision Metal Work. A group of instructional programs that prepare individuals to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped, or otherwise worked upon.

48.0501 Precision Metal Work, General. An instructional program that prepares individuals to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped, or otherwise worked upon.

48.0502 Foundry Work. An instructional program that prepares individuals to engage in activities at ferrous and nonferrous foundries. Includes instruction in foundry equipment, various sands and refractories, sand and machine molding, core-making, chipping, grinding, foundry chemistry, and metallurgy.

48.0503 Machine Tool Operation/Machine Shop. An instructional program that prepares individuals to shape metal parts on machines such as lathes, grinders, drill presses, milling machines, and shapers. Programs may also train individuals in the use of one machine tool. Includes instruction in making computations related to work dimensions, testing feeds and speeds of machines using precision measuring instruments such as layout tools, micrometers, and gauges; machining and heat-treating various metals; and in laying out machine parts.

48.0504 Metal Fabrication. An instructional program that prepares individuals to fabricate and assemble a variety of products. Includes instruction in layout; sequence of operations; set up and operation of fabricating machines; design and construction of templates and fixtures; and the positioning; aligning, fitting, and welding of parts.

48.0505 Metal Patternmaking. An instructional program that prepares individuals to fit, assemble, and handfinish castings and parts in the manufacture of metal-foundry pattern, according to specifications and pattern-making methods.

48.0506 Sheet Metal. An instructional program that prepares individuals to lay out, fabricate, erect or install, and maintain items made of steel, copper, stainless steel, and aluminum, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.

48.0507 Tool and Die Making. An instructional program that prepares individuals to analyze specifications and to lay out metal stock, set up and operate machine tools to fit and assemble parts for the manufacture and repair of metalworking dies, cutting tools, fixtures, gauges, and machinists' hand tools. Includes instruction in metal properties and in the applications and construction of tool and die designs.

48.0508 Welding. An instructional program that prepares individuals to use any welding and cutting processes according to diagrams, blueprints, or written specifications, and may include robotic applications.

48.0599 Precision Metal Work, Other. Any instructional program in precision metal work not described above.

48.06 Precision Work, Assorted Materials. An instructional program that prepares individuals to produce precision goods in a variety of materials including ceramics, precious stones, metals, glass, and plastics.

----- Commercial Garment and Apparel Construction (see 20.0303).

48.0601 Industrial Ceramics Manufacturing. An instructional program that prepares individuals to engage in manufacturing activities to produce ceramic machine tools; refractories for space vehicles; and brick, glass, crockery, tile, pipe, and other articles made from clays and silicas. Includes instruction in testing physical, chemical, and heat-resisting properties of materials, and processing, forming, and firing clays to develop ceramic products.

48.0602 Jewelry Design, Fabrication, and Repair. An instructional program that prepares individuals to design, fabricate, and repair jewelry articles such as rings, brooches, pendants, bracelets, and lockets. Includes instruction in modelmaking; casting, engraving, polishing, stonesetting, fitting rings, and soldering broken parts; reshaping and restying old jewelry; and using special jeweler's hand tools and machines.

48.0603 Plastics. An instructional program that prepares individuals to mold and cast parts, patterns, and prototype parts; fit, fabricate, and repair internal carvings; finish plastic parts; and assemble plastic components into products.

48.0699 Precision Work, Assorted Materials, Other. Any instructional program in precision work, assorted materials not described above.

48.07 Woodworking. A group of instructional programs that prepare individuals to lay out and shape stock; assemble wooden articles or subassemblies; mark, bind, saw, carve, and sand wooden products; repair wooden articles, and use a variety of hand and power tools.

48.0701 Woodworking, General. An instructional program that prepares individuals to lay out and shape stock; assemble wooden articles or subassemblies; mark, bind, saw, carve, and sand wooden products; repair wooden articles, and use a variety of hand and power tools.

48.0702 Furniture Making. An instructional program that prepares individuals to assemble and finish wood furniture. Includes instruction in preparing freehand sketches; fastening wooden parts with glue; reinforcing joints with dowels, screws, staples, or nails using power screwdrivers, staple guns, or hammers; and finishing or refinishing new, used, damaged, or worn furniture according to specifications.

48.0703 **Millwork and Cabinet Making.** An instructional program that prepares individuals to engage in the mass production of such articles as window frames, moldings, trim and panels; and such products as store fixtures, kitchen cabinets, and office equipment. Includes instruction in cutting, shapping, assembling, and refinishing articles; installing hinges, catches, drawer pulls, and other hardware; and planning and drafting layouts.

48.0799 **Woodworking, Other.** Any instructional program in woodworking not described above.

48.99 **Precision Production, Other.** A group of instructional programs in precision production not described above.

48.9999 **Precision Production, Other.** Any instructional programs in precision production not described above.

49. **Transportation and Material Moving.** A summary of groups of instructional programs that prepare individuals to operate and control equipment used to facilitate the movement of people or materials.

49.01 **Air Transportation.** A group of instructional programs that prepare individuals to engage in activities concerned with the inflight operation of commercial and private airplanes, including piloting, navigating, and providing passenger services and general ground support.

49.0101 **Air Transportation, General.** An instructional program that generally prepares individuals to engage in activities concerned with the inflight operation of commercial and private airplanes, including piloting, navigating, and providing passenger services and general ground support.

49.0102 **Air Piloting and Navigation (Commercial).** An instructional program that prepares individuals to pilot aircraft and assume the eventual command responsibility of carrying passengers and freight. Includes instruction in aircraft structure, behavior, operations, and controls; radio communications, meteorology; navigation; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft. Completion of this program prepares individuals to take Federal Aviation Administration (FAA) examinations for a commercial pilot's certificate.

49.0104 **Aviation Management.** An instructional program that prepares individuals in the nature and application of management methods and techniques related to the aviation industry.

49.0105 **Air Traffic Control.** An instructional program that prepares individuals in air-traffic management and control, usually with additional training at the FAA Flight Control Center in a cooperative education program. Includes instruction in flight control; the use of radar and electronic scanning devices; plotting of flights; radio communication; interpretation of weather conditions affecting flights; flight instrumentation used by pilots; and maintenance of flight-control center or control-tower log books and reports.

49.0106 **Flight Attendants.** An instructional program that prepares individuals to perform a variety of personal services conducive to the safety and comfort of airline passengers during flight, including verifying tickets, explaining the use of safety equipment, and serving prepared meals and beverages.

49.0107 Airplane Piloting (Private). An instructional program that prepares individuals to fly aircraft for personal use. The program is designed to meet the Federal Aviation Administration's certification requirements.

49.0199 Air Transportation, Other. Any instructional program in air transportation not described above.

49.02 Vehicle and Equipment Operation. A group of instructional programs that prepare individuals to drive trucks and buses, and to operate construction, material handling, and mining equipment.

49.0201 Vehicle and Equipment Operation, General. An instructional program that generally prepares individuals to drive trucks and buses, and to operate construction, material handling, and mining equipment.

49.0202 Construction Equipment Operation. An instructional program that prepares individuals to operate and maintain a variety of heavy equipment, such as a crawler tractor, motor graders and scrapers, and shovels, including dragline, hoe, and cranes. Includes instruction in digging, ditching, sloping, stripping, grading backfiling, clearing, and excavating.

49.0203 Material Handling. An instructional program that prepares individuals to receive, store, ship, transport, control, and distribute products and materials; keep records of transactions; and properly use hand tools and power equipment such as bars, cutters, hand trucks, conveyors, and industrial trucks to move materials.

49.0204 Mining Equipment Operation. An instructional program that prepares individuals to engage in mining operation activities; operate excavating machinery and shuttle cars; test for and identify gases in the mine; and maintain testing equipment. Includes instruction in first aid; ventilation and dust control in the mine; techniques of roofing, ribbing, and setting crossbars; escape procedures; and maintenance of penumatic and hydraulic systems.

49.0205 Truck and Bus Driving. An instructional program that prepares individuals to drive trucks and buses. Includes instruction in operating gas, diesel, or electrically-powered vehicles; loading and unloading cargo or passengers; reporting delays or accidents on the road; verifying load against shipping papers; arranging transportation for personnel; and keeping records of receipts and fares.

49.0299 Vehicle and Equipment Operation, Other. Any instructional program in vehicle and equipment operation not described above.

49.03 Water Transportation. A group of instructional programs that prepare individuals to perform tasks on fresh-water and sea-going ships, tugboats, barges, floating structures, and related harbor and dock machinery. Includes instruction in firefighting; lifeboat work; swimming; fiber and wire rope handling and splicing; hull maintenance and painting; cargo-handling gear and ground tackle; maintenance, operation, and repair of main engines and auxiliary steam, refrigeration, water, and electrical systems; and watchkeeping, store-keeping, and food preparation.

49.0301 Water Transportation, General. An instructional program that prepares individuals to perform tasks on fresh-water and sea-going ships, tugboats, barges, floating structures, and related harbor and dock machinery. Includes instruction in firefighting; lifeboat work; swimming; fiber and wire rope handling and splicing; hull maintenance and painting; cargo-handling gear and ground tackle; maintenance, operation, and repair of main engines and auxiliary steam, refrigeration, water, and electrical systems; and watchkeeping, store-keeping, and food preparation.

49.0302 Barge and Boat Operations. An instructional program that prepares individuals to direct the operation and navigation of barges, dredges, non-cable ferry boats, and tugboats to transport people and materials; to tow other marine vessels; and to dredge waterways.

49.0303 Commercial Fishing Operations. An instructional program that prepares individuals to support the captain of a fishing boat or perform as an officer in charge of various types of boats for commercial or recreational purposes. Includes instruction in operation of boats, fishing gear, navigational instruments, electronic fish-finding and depth-measuring devices; and specialized gear required for catching, identifying, sorting, and storing fish or other marine products; safety procedures; marine law and tradition; maintenance of ships logs and report preparation; and effective functioning on board all types of boats. Programs provide preparation for licensure by the Coast Guard.

49.0304 Deep Water Diving and Life Support Systems. An instructional program that prepares individuals to deep-water dive or serve as attendants on board boats from which diving is done. Includes instruction in the use of diving bells and other specialized gear; problems and hazards of diving; mixing and delivering oxygen and other life-support gases; communication systems; decompression systems; and limits of depth of diving; deep underwater salvage; exploration, rescue, and photography; and installation of underwater mechanical systems and their maintenance, repair, or demolition.

49.0305 Marina Operations. An instructional program that prepares individuals to manage and operate commercial marinas. Includes instruction in accommodating, docking, serving, and provisioning recreational or small commercial fishing or other boats; designing, installing, and maintaining docks, wharfs, and related equipment; ensuring sanitation of facilities; fueling and fire prevention; protecting wharf and docking facilities from biological or other destructive agents; maintaining facilities and manning the establishment to serve the public; and basic marine laws and legal responsibilities.

49.0306 Marine Maintenance. An instructional program that prepares individuals to repair outboard and inboard engines; test, maintain, and repair steering devices and electrical systems; repair metal, wood, and fiberglass; fabricate and maintain sail; and repair and balance propellers.

49.0308 Sailors and Deckhands. An instructional program that prepares individuals to use and maintain lines, nets, navigational aids, radios, and electronic equipment; safely handle boats; maintain docks, surfaces, engines, and power plants; and other ocean skills that promote safety and survival at sea.

49.0399 Water Transportation, Other. Any instructional program in water transportation not described above.

49.99 **Transportation and Material Moving, Other.** A group of instructional programs in transportation and material moving not described above.

49.9999 Transportation and Material Moving, Other. Any instructional program in transportation and material moving not described above.

50. **Visual and Performing Arts.** A summary of groups of instructional programs that describe the creation and perception of auditory, kinesthetic, and visual phenomena which express ideas and emotions in various forms, subject to aesthetic criteria.

50.01 Visual and Performing Arts, General. A group of instructional programs (see 50.0101).

50.0101 **Visual and Performing Arts, General.** An instructional program that generally describes the historic development, aesthetic qualities, and creative processes of two or more of the visual and performing arts.

50.02 Crafts. A group of instructional programs that describe how to increase one's skills to fashion objects in a specialized area of handwork.

50.0201 Crafts, General. An instructional program that generally describes how to increase one's skills to fashion objects in a specialized area of handwork.

50.0202 Ceramics. An instructional program that describes how to increase one's skills to fashion objects of clay and similar materials treated by firing.

50.0204 Fiber/Textiles/Weaving. An instructional program that describes how to increase one's skills to interlace fibrous material (threads, yarns, etc.) into fabrics or materials having decorative or ornamental purposes.

50.0205 Glass. An instructional program that describes how to increase one's skills to form or shape a mass of molten or heat-softened glass into functional and decorative items.

50.0206 Metal/Jewelry. An instructional program that describes how to increase one's skills to fashion articles of personal adornment from gems and precious metals.

50.0299 Crafts, Other. Any instructional program in crafts not described above.

50.03 Dance. A group of instructional programs (see 50.0301).

50.0301 Dance. An instructional program that describes the performance and choreography of various kinds of dancing, including but not limited to ballet, modern, jazz, ethnic, and folk dance.

50.04 Design. A group of instructional programs that describe the theories, techniques, and creative processes for more effectively performing the function of communicating feelings, ideas, and information through use of materials and media to create two- or three-dimensional visual affects.

50.0401 Design, General. An instructional program that generally describes the theories, aesthetic qualities, and processes of two or more design specialities.

------- Environmental Design (see 04.0401).

------- Fashion Design (see 19.0902).

50.0402 Graphic Design. An instructional program that describes the theories, aesthetic qualities, and creative processes for more effectively communicating ideas, information, and feelings in printed form with attention being given to both aesthetic and functional criteria.

50.0403 Illustration Design. An instructional program that describes the techniques for conveying information through visual imagery and pictorial representation.

50.0404 Industrial Design. An instructional program that describes the techniques of designing consumer or commercial products and packaging to maximize aesthetic appeal while not compromising utilitarian value.

------- Interior Design (see 04.0501).

------- Medical Illustrating (see 17.0504).

50.0405 Theatre Design. An instructional program that describes the techniques of communicating information, ideas, moods, and feelings through set design and costuming with attention to both function and aesthetics.

50.0499 Design, Other. Any instructional program in design not describe above.

50.05 Dramatic Arts. A group of instructional programs (see 50.0501).

50.0501 Dramatic Arts. An instructional program that describes the development, theory, processes of creating live performances through human expressive modalities.

50.06 Film Arts. A group of instructional programs that describe the development, theories, processes, and techniques of photographic images as a means of artistic expression.

50.0601 Film Arts, General. An instructional program that generally describes the development, theories, processes, and techniques of two or more of the film arts.

50.0602 Cinematography/Film. An instructional program that describes the historic development, aesthetic qualities, theories, techniques, and creative processes of the moving images as a means of artistic expression using film as the medium.

50.0603 Film Animation. An instructional program that describes the techniques and creative processes for creating motion pictures consisting of a series of drawings, each slightly different from the preceding one so that, when filmed and projected, the figures appear to move.

50.0604 Holography An instructional program that describes the theories, techniques and creative processes for making holograms (three-dimensional pictures made on a photographic film or plate without the use of a camera).

50.0605 Photography. An instructional program that describes the historic development, aesthetic qualities, theories, techniques, and creative processes of producing images on photographic film or plates.

50.0606 Video. An instructional program that describes the aesthetic qualities, theories, techniques, and creative processes of moving images as a means of artistic expression using videotape as the medium.

50.0699 Film Arts, Other. Any instructional program in film arts not described above.

50.07 Fine Arts. A group of instructional programs that describe the organization of materials and media for two- or three-dimensional visual affects that communicate ideas, express emotion, and are considered primarily in relation to aesthetic criteria of judgments of beauty or meaningfulness.

50.0701 Fine Arts, General. An instructional program that generally describes the historic development, aesthetic qualities and creative processes of two or more of the fine arts.

50.0702 Art Conservation. An instructional program that describes the techniques and processes for protecting objects of art (e.g., paintings, sculpture) from deterioration or decay and for restoring such objects that have deteriorated or been damaged.

50.0703 Art History and Appreciation. An instructional program that describes art and its relationship to concurrent events, the evaluation of artistic styles, the lives of artists, and the role of art in human affairs, including contemporary times.

50.0704 Arts Management. An instructional program that prepares individuals to apply economic and business principles to the management and operation of profit and nonprofit organizations that specialize in the visual or performing arts.

50.0705 Drawing. An instructional program that describes the aesthetic qualities, techniques, and creative processes for communicating ideas, feelings, and inner visions through representation by lines; a delineation of form without reference to color.

50.0706 Intermedia. An instructional program that describes the aesthetic qualities, techniques, and creative processes for expressing emotions, ideas, or inner visions in either two or three dimensions using a variety of materials (media) simultaneously.

50.0708 Painting. An instructional program that describes the aesthetic qualities, techniques, and creative processes for expressing emotions or communicating ideas through application of paints to canvases or other materials.

50.0709 Sculpture. An instructional program that describes the aesthetic qualities, techniques, and creative processes for creating works of art in the three dimensions through carving, molding, welding or other procedures.

50.0710 Printmaking. An instructional program that describes the aesthetic qualities, techniques, and creative processes for producing fine arts prints by rendering art work in stone, metal, wood or other material and transferring images onto paper or other media, using ink or photographic or silkscreen process.

50.0799 Fine Arts, Other. Any instructional program in fine arts not described above.

50.09 Music. A group of instructional programs that describe the art and science of combining sounds of various timbre in harmonic, rhythmic, or melodic forms which are artistically expressive.

50.0901 Music, General. An instructional program that generally describes music history and appreciation, music performance, and music theory and composition.

50.0902 Music History and Appreciation. An instructional program that describes music and its relationship to concurrent events, the evolution of musical styles, the lives of musicians, and the role of music in human affairs, including contemporary times.

50.0903 Music Performance. An instructional program that describes the applied study of and performance on musical instruments, or the applied study of voice and vocal performance, either solo or in ensemble.

50.0904 Music Theory and Composition. An instructional program that describes the principles, forms, and foundations of music as well as the techniques of creating and arranging tonal combinations and sequences.

50.0999 Music, Other. Any instructional program in music not described above.

50.99 Visual and Performing Arts, Other. A group of instructional programs in visual and performing arts not described above.

50.9999 Visual and Performing Arts, Other. Any instructional program in visual and performing arts not described above.

Appendixes

Appendix A

List 1

Codes and Titles Deleted from the Classification of Instructional Programs

Code	Title
01.0403	Nonfood Products
02.0205	Animal Physiology
02.0207	Fisheries Science
02.0302	Dairy Processing
02.0303	Food Distribution
02.0304	Food Engineering
02.0305	Food Packaging
02.0306	Food Technology
02.0399	Food Sciences, Other
02.0404	Ornamental Horticulture
02.0405	Plant Breeding and Genetics
02.0406	Plant Pathology (Applied)
02.0407	Plant Physiology
02.0410	Turf Management Science
02.0502	Soil Chemistry
02.0503	Soil Conservation
02.0504	Soil Management and Fertility
02.0505	Soil Microbiology
02.0506	Soil Physics
02.0599	Soil Sciences, Other
03.0302	Fisheries
03.0399	Fishing and Fisheries, Other
03.0406	Pulp and Paper Production
03.0503	Forest Biology
03.0505	Forest Hydrology
03.0507	Forest Mensuration
03.0508	Urban Forestry
06.0404	Systems Efficiency Analysis
06.1301	Business Statistics
06.1702	Commercial Property
06.1703	Property Management
06.1704	Real Estate Appraisal
06.1705	Real Estate Finance
06.1706	Real Estate Law
06.1707	Residential Property
06.1799	Real Estate, Other
06.1802	Small Business Ownership
06.1899	Small Business Management and Ownership, Other
07.0202	Credit Collection Clerk
07.0204	Loan Clerk
07.0206	Transit Clerk
07.0706	Mail and Order Clerk
07.0710	Typing
08.0402	Banking Marketing
08.0403	Credit Marketing
08.0404	Credit Union Marketing
08.0405	Savings and Loan Marketing
08.0406	Securities and Commodities Marketing
08.0499	Financial Services Marketing, Other
08.0804	Floor Coverings, Draperies, and Upholstery Marketing
08.1002	Accident and Health Insurance Marketing
08.1003	Life Insurance Marketing
08.1004	Property and Casualty Insurance Marketing
08.1099	Insurance Marketing, Other
08.1103	Passenger Transportation Marketing
08.1202	Agricultural Implements and Machinery Marketing
12.0102	Drycleaning
12.0103	Laundering
12.0199	Drycleaning and Laundering Services, Other
12.0201	Entertainment Services, General
13.0602	Adult and Continuing Education Research
15.0601	Chemical Manufacturing Technology
15.0604	Manufacturing Technology
15.0605	Marine Products Technology
15.0608	Safety Technology
15.0802	Agricultural Equipment Technology
16.0303	Korean
16.0401	Baltic Languages
16.0503	Yiddish
16.0602	Greek (Modern)
16.0701	Hindi
16.0702	Sanskrit
16.0799	Indic Languages, Other
16.08	Iranian Languages
16.0801	Iranian Languages
17.0403	Genetic Counseling
17.0501	Animal Technology
17.0509	Physician Assisting—Specialty
17.0511	Veterinarian Aide
17.0603	Obstetrical Technology
17.0604	Pediatric Aide
17.0702	Ophthalmic Laboratory Technology
17.0703	Ophthalmic Medical Assisting
17.0704	Optometric Assisting
17.0706	Orthoptics
17.0805	Manual Arts Therapy
17.0810	Orthotic/Prosthetic Assisting
17.0821	Speech-Language Pathology/Audiology
18.05	Emergency/Disaster Science
18.0501	Emergency/Disaster Science
18.06	Epidemiology
18.08	Hematology
18.16	Population and Family Planning
18.21	Prosectorial Science
18.2101	Prosectorial Science

Code	Title
18.23	Toxicology (Clinical)
19.0302	Nonformal Education (Extension, Adult/Extended)
19.0303	Family Services
19.0399	Family and Community Services, Other
19.0403	Family Economics
19.0504	Human Nutrition
19.0702	Adult Development
19.08	International/Comparative Home Economics
19.0801	International/Comparative Home Economics
19.0903	Textiles and Clothing, Retail
20.0205	Teacher Aide
20.0307	Textiles Testing
20.0407	Food Testing
20.0607	Therapeutic Recreation Aide
23.09	Rhetoric
23.0901	Rhetoric
26.0303	Mycology
26.0306	Plant Pharmacology
40.0803	Electron Physics
40.0804	Elementary Particle Physics
40.0805	Fluids and Plasmas
46.0411	Terrazzo Installation
47.0503	Industrial Nuclear Energy
47.0602	Aircraft Mechanics
48.0603	Optical Goods Work
49.0103	Aviation Computer Technology
49.0307	Merchant Marine Officers
50.0203	Enameling
50.0707	Kinetics
50.08	Graphic Arts Technology
50.0801	Graphic Arts Technology

List 2

New Entries in the Classification of Instructional Programs

Code	Title
01.0507	Horse Handling and Care
04.08	Land Use Management and Reclamation
04.0801	Land Use Management and Reclamation
05.0115	Canadian Studies
06.1303	Management Science, General
06.21	Computer Installation Management
06.2101	Computer Installation Management
07.08	Word Processing
08.0708	Marketing, General
09.08	Telecommunications
09.0801	Telecommunications
10.0105	Sound Recording Technology
10.0106	Video Technology
11.06	Microcomputer Applications
11.0601	Microcomputer Applications
12.0406	Make-up Artistry
13.0202	Bilingual Education Assisting
13.0299	Bilingual/Crosscultural Education, Other
13.1321	Computer Education
13.15	Teacher Assisting
13.1501	Teacher Assisting
14.1002	Microelectronic Engineering
15.0405	Robotics Technology
15.10	Construction Technology
15.1001	Construction Technology
16.0499	Balto-Slavic Languages, Other
16.0703	Indic Languages
17.0410	Sign Language Interpreting
17.0514	Chiropractic Assisting
17.0822	Recreational Therapy Aide
18.1030	Sports Medicine
18.2203	Public Health Education
18.2204	Public Health Practice and Management
18.2299	Public Health, Other
23.12	English as a Second Language
23.1201	English as a Second Language
24.0102	General Studies
28.05	Maritime Science (Merchant Marine)
28.0501	Maritime Science (Merchant Marine)
30.08	Mathematics and Computer Science
30.0801	Mathematics and Computer Science
30.09	Imaging Science
30.0901	Imaging Science
32.0107	Career Exploration
45.0302	Archeological Technology
47.0607	Aircraft Mechanics, Airframe
47.0608	Aircraft Mechanics, Powerplant
48.0210	Photoengraving
49.0107	Airplane Piloting (Private)
50.0710	Printmaking

List 3

Revised Codes in the Classification of Instructional Programs

From		To
07.0608	Word Processing	07.0801
18.0601	Epidemiology	18.2202
18.0801	Hematology	18.1029
18.1601	Population and Family Planning	17.0409
18.2301	Toxicology (Clinical)*	18.0206
29.0199	Military Technologies, Other	29.9999
47.0406	Shoe and Boot Repair	48.0304

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*Title revised to Clinical Toxicology.

List 4

Revised Titles in the Classification of Instructional Programs

Code	From	To
01.0504	Animal Grooming	Pet Grooming
01.0603	Floriculture	Ornamental Horticulture
02.0301	Food Sciences, General	Food Sciences
02.0501	Soil Sciences, General	Soil Sciences
03.0301	Fishing and Fisheries, General	Fishing and Fisheries
06.1701	Real Estate, General	Real Estate
06.1801	Small Business Management	Small Business Management and Ownership
07.	Business and Office	Business (Administrative Support)
07.0502	Educational Assisting and Training	Training Assisting
07.99	Business and Office, Other	Business (Administrative Support), Other
07.9999	Business and Office, Other	Business (Administrative Support), Other
08.0301	Entrepreneurship, General	Entrepreneurship
08.0401	Financial Services, Marketing General	Financial Services Marketing
08.1001	Insurance Marketing, General	Insurance Marketing
08.1102	Freight Transportation Marketing	Transportation Marketing
09.06	Radio/Television News Broadcast	Radio/Television News Broadcasting
09.0601	Radio/Television News Broadcast	Radio/Television News Broadcasting
12.0101	Drycleaning and Laundering Services, General	Drycleaning and Laundering Services
12.0402	Barbering	Barbering/Hairstyling
13.02	Bilingual/Bicultural Education	Bilingual/Crosscultural Education
13.0201	Bilingual/Bicultural Education	Bilingual/Crosscultural Education
13.1203	Junior High Education	Junior High/Middle School Education
17.0201	Cardiopulmonary Technology	Cardiovascular Technology
17.0209	Radiograph Medical Technology	Radiologic (Medical) Technology
17.0212	Ultrasound Technology	Diagnostic Medical Sonography
17.0508	Physician Assisting—Primary Care	Physician Assisting
17.0513	Ward Clerk	Health Unit Coordinating
17.0606	Ward Service Management	Health Unit Management
17.0817	Recreational Therapy Technology	Recreational Therapy Assisting
18.0103	Speech Pathology/Audiology	Speech-Language Pathology/Audiology
18.0205	Physiology	Clinical Physiology

Code	From	To
18.07	Health Sciences Administration	Health Services Administration
18.0701	Health Care Administration	Health Services Administration
18.0799	Health Sciences Administration, Other	Health Services Administration, Other
18.22	Public Health Laboratory Science	Public Health
19.0301	Family and Community Services, General	Family and Community Services
19.0705	Geriatric Services	Gerontological Services
20.01	Consumer and Homemaking Home Economics	Consumer and Homemaking Education
20.0101	Comprehensive Consumer and Homemaking Home Economics	Comprehensive Consumer and Homemaking Education
20.0199	Consumer and Homemaking Home Economics, Other	Consumer and Homemaking Education, Other
24.0101	Liberal/General Studies	Liberal Arts and Sciences
46.04	Miscellaneous Construction Trades	Miscellaneous Construction Trades and Property Maintenance
46.0401	Building Maintenance	Building and Property Maintenance
46.0499	Miscellaneous Construction Trades, Other	Miscellaneous Construction Trades and Property Maintenance, Other
48.0205	Composition, Make-up and Typesetting	Typesetting, Make-up and Composition
48.0508	Welding, Brazing, and Soldering	Welding
49.0102	Airplane Piloting and Navigation	Airplane Piloting and Navigation (Commerical)
49.0302	Barge and Boat Operation	Barge and Boat Operations
49.0303	Commercial Fishing Operation	Commercial Fishing Operations

Appendix B

Crosswalk Between the HEGIS Taxonomy and the CIP

HEGIS Taxonomy		CIP	
0100	Agriculture and natural resources	01.	Agribusiness and Agricultural Production
		02.	Agricultural Sciences
		03.	Renewable Natural Resources
0101	Agriculture, general	02.0101	Agricultural Sciences, General
0102	Agronomy (field crops, and crop management)	02.0402	Agronomy
0103	Soils science (management and conservation)	02.0501	Soil Sciences
0104	Animal science (husbandry)	02.0201	Animal Sciences, General
0105	Dairy science (husbandry)	02.0206	Dairy
0106	Poultry science	02.0209	Poultry
0107	Fish, game, and wildlife management	01.0305	Game Farm Management
		03.0301	Fishing and Fisheries
		03.0601	Wildlife Management
0108	Horticulture (fruit and vegetable production)	02.0403	Horticulture Science
0109	Ornamental horticulture (floriculture, nursery science)	01.0603	Ornamental Horticulture
0110	Agricultural and farm management	01.0101	Agricultural Business and Management, General
0111	Agricultural economics	01.0103	Agricultural Economics
0112	Agricultural business	01.0102	Agricultural Business
0113	Food science and technology	02.0301	Food Sciences
0114	Forestry	03.0501	Forestry and Related Sciences, General
		03.0502	Forestry Science
0115	Natural resources management	03.0101	Renewable Natural Resources, General
0116	Agriculture and forestry technologies (baccalaureate and higher programs)	03.0402	Forest Production
		03.0403	Forest Products Utilization
		03.0499	Forestry Production and Processing, Other
0117	Range management	02.0409	Range Management
0199	Other, specify	01.9999	Agribusiness and Agricultrual Production, Other
		02.0202	Animal Breeding and Genetics
		02.0203	Animal Health
		02.0204	Animal Nutrition
		02.0208	Livestock
		02.0299	Animal Sciences, Other
		02.0401	Plant Sciences, General
		02.0408	Plant Protection (Pest Management)
		02.0499	Plant Sciences, Other
		02.9999	Agricultural Sciences, Other
		03.0201	Conservation and Regulation, General
		03.0202	Conservation
		03.0203	Resources Protection and Regulation
		03.0299	Conservation and Regulation, Other
		03.0504	Forest Engineering
		03.0506	Forest Management
		03.0509	Wood Science
		03.0599	Forestry and Related Sciences, Other
		03.9999	Renewable Natural Resources, Other
		31.0101	Parks and Recreation, General
		31.0401	Water Resources
		31.9999	Parks and Recreation, Other

HEGIS Taxonomy		CIP	
0200	Architecture and environmental design	04.	Architecture and Environmental Design
0201	Environmental design, general	04.0401	Environmental Design
0202	Architecture	04.0201	Architecture
0203	Interior design	04.0501	Interior Design
0204	Landscape architecture	04.0601	Landscape Architecture
0205	Urban architecture	04.0701	Urban Design
0206	City, community, and regional planning	04.0301	City, Community, and Regional Planning
0299	Other, specify	04.0101	Architecture and Environmental Design, General
		04.0801	Land Use Management and Reclamation
		04.9999	Architecture and Environmental Design, Other
0300	Area studies	05.	Area and Ethnic Studies
0301	Asian studies, general	05.0103	Asian Studies, General
0302	East Asian studies	05.0104	East Asian Studies
0303	South Asian (India, etc.) studies	05.0112	South Asian Studies
0304	Southeast Asian studies	05.0113	Southeast Asian Studies
0305	African studies	05.0101	African Studies
0306	Islamic studies	05.0204	Islamic Studies
0307	Russian and Slavic studies	05.0110	Russian and Slavic Studies
0308	Latin American studies	05.0107	Latin American Studies
0309	Middle Eastern studies	05.0108	Middle Eastern Studies
0310	European studies, general	05.0106	European Studies, General
0311	Eastern European studies	05.0105	Eastern European Studies
0312	West European studies	05.0114	Western European Studies
0313	American studies	05.0102	American Studies
0314	Pacific area studies	05.0109	Pacific Area Studies
0399	Other, specify	05.0111	Scandinavian Studies
		05.0115	Canadian Studies
		05.0199	Area Studies, Other
		05.0205	Jewish Studies
		05.0299	Ethnic Studies, Other
		05.9999	Area and Ethnic Studies, Other
0400	Biological sciences	26.	Life Sciences
0401	Biology, general	26.0101	Biology, General
0402	Botany, general	26.0301	Botany, General
0403	Bacteriology	26.0302	Bacteriology
0404	Plant pathology	26.0305	Plant Pathology
0405	Plant pharmacology	26.0399	Botany, Other
0406	Plant physiology	26.0307	Plant Physiology
0407	Zoology, general	26.0701	Zoology, General
0408	Pathology, human and animal	26.0704	Pathology, Human and Animal
0409	Pharmacology, human and animal	26.0705	Pharmacology, Human and Animal
0410	Physiology, human and animal	26.0706	Physiology, Human and Animal
0411	Microbiology	26.0501	Microbiology
0412	Anatomy	26.0601	Anatomy
0413	Histology	26.0606	Histology
0414	Biochemistry	26.0201	Biochemistry and Biophysics
0415	Biophysics	26.0201	Biochemistry and Biophysics

HEGIS Taxonomy		CIP	
0416	Molecular biology	26.0402	Molecular Biology
0417	Cell biology (cytology, cell physiology)	26.0401	Cell Biology
0418	Marine biology	26.0607	Marine Biology
0419	Biometrics and biostatistics	26.0602	Biometrics and Biostatistics
0420	Ecology	26.0603	Ecology
0421	Entomology	26.0702	Entomology
0422	Genetics	26.0703	Genetics, Human and Animal
0423	Radiobiology	26.0611	Radiobiology
0424	Nutrition, scientific (excludes nutrition in home economics and dietetics)	26.0609	Nutritional Sciences
0425	Neurosciences	26.0608	Neurosciences
0426	Toxicology	26.0612	Toxicology
0427	Embryology	26.0604	Embryology
0499	Other, specify	26.0304	Plant Genetics
		26.0399	Botany, Other
		26.0499	Cell and Molecular Biology, Other
		26.0605	Endocrinology
		26.0610	Parasitology
		26.0699	Miscellaneous Specialized Areas, Life Sciences, Other
		26.0799	Zoology, Other
		26.9999	Life Sciences, Other
0500	Business and management	06.	Business and Management
0501	Business and commerce, general	06.0101	Business and Management, General
0502	Accounting	06.0201	Accounting
0503	Business statistics	06.1399	Management Science, Other
0504	Banking and finance	06.0301	Banking and Finance
0505	Investments and securities	06.1001	Investments and Securities
0506	Business management and administration	06.0401	Business Administration and Management, General
0507	Operations research	06.1302	Operations Research (Quantitative Methods)
0508	Hotel and restaurant management	06.0701	Hotel/Motel Management
		06.0704	Restaurant Management
0509	Marketing and purchasing	06.0402	Contract Management and Procurement/Purchasing
		06.1401	Marketing Management
0510	Transportation and public utilities	06.0705	Transportation Management
		44.0602	Public Transportation
		44.0603	Public Utilities
0511	Real estate	06.1701	Real Estate
0512	Insurance	06.0801	Insurance and Risk Management
0513	International business	06.0901	International Business Management
0514	Secretarial studies (baccalaureate and higher programs)	07.0601	Secretarial and Related Programs, General
0515	Personnel management	06.1601	Personnel Management
0516	Labor and industrial relations	06.1101	Labor/Industrial Relations
0517	Business economics	06.0501	Business Economics
0599	Other, specify	06.0403	Product Management
		06.0499	Business Administration and Management, Other
		06.0601	Human Resources Development
		06.0702	Recreational Enterprises Management
		06.0703	Resort Management
		06.0799	Institutional Management, Other

HEGIS Taxonomy		CIP	
		06.1201	Management Information Systems
		06.1303	Management Science, General
		06.1399	Management Science, Other
		06.1402	Marketing Research
		06.1499	Marketing Management and Research, Other
		06.1501	Organizational Behavior
		06.1801	Small Business Management and Ownership
		06.1901	Taxation
		06.2001	Trade and Industrial Supervision and Management
		06.2101	Computer Installation Management
		06.9999	Business and Management, Other
0600	Communications	09.	Communications
0601	Communications, general	09.0101	Communications, General
0602	Journalism (printed media)	09.0401	Journalism (Mass Communications)
0603	Radio/television	09.0601	Radio/Television News Broadcasting
		09.0701	Radio/Television, General
0604	Advertising	09.0201	Advertising
0605	Communication media (use of videotape, films, etc., oriented specifically toward radio/television)	10.0104	Radio and Television Production and Broadcasting Technology
		10.0106	Video Technology
0699	Other, specify	09.0301	Communications Research
		09.0501	Public Relations
		09.0801	Telecommunications
		09.9999	Communications, Other
0700	Computer and information sciences	11.	Computer and Information Sciences
0701	Computer and information sciences, general	11.0101	Computer and Information Sciences, General
0702	Information sciences and systems	11.0401	Information Sciences and Systems
0703	Data processing	11.0301	Data Processing
0704	Computer programming	11.0201	Computer Programming
0705	Systems analysis	11.0501	Systems Analysis
0699	Other, specify	11.0601	Microcomputer Applications
		11.9999	Computer and Information Sciences, Other
0800	Education	13.	Education
0801	Education, general	13.0101	Education, General
0802	Elementary education, general	13.1202	Elementary Education
0803	Secondary education, general	13.1205	Secondary Education
0804	Junior high school education	13.1203	Junior High/Middle School Education
0805	Higher education, general	13.0406	Higher Education Administration
		13.0606	Higher Education Research
0806	Junior and community college education	13.0407	Community College Education Administration
0807	Adult and continuing education	13.0403	Adult and Continuing Education Administration
		13.1201	Adult and Continuing Education
0808	Special education, general	13.1001	Special Education, General
0809	Administration of special education	13.0402	Administration of Special Education
0810	Education of the mentally retarded	13.1006	Education of the Mentally Handicapped

HEGIS Taxonomy		CIP	
0811	Education of the gifted	13.1004	Education of the Gifted and Talented
0812	Education of the deaf	13.1003	Education of the Deaf and Hearing Impaired
0813	Education of the culturally disadvantaged	13.1002	Education of the Culturally Disadvantaged
0814	Education of the visually handicapped	13.1009	Education of the Visually Handicapped
0815	Speech correction	13.1012	Speech Correction
0816	Education of the emotionally disturbed	13.1005	Education of the Emotionally Handicapped
0817	Remedial education	13.1010	Remedial Education
0818	Special learning disabilities	13.1011	Specific Learning Disabilities
0819	Education of the physically handicapped	13.1008	Education of the Physically Handicapped
0820	Education of the multiple handicapped	13.1007	Education of the Multiple Handicapped
0821	Social foundations (history and philosophy of education)	13.0901	Social Foundations
0822	Educational psychology (include learning theory)	13.0801	School Psychology
0823	Pre-elementary education (kindergarten)	13.0403	Pre-Elementary Education
0824	Educational statistics and research	13.0603	Educational Statistics and Research
0825	Educational testing, evaluation and measurement	13.0604	Educational Testing, Evaluation, and Measurement
0826	Student personnel (counseling and guidance)	13.1101	Student Counseling and Personnel Services
0827	Educational administration	13.0401	Education Administration, General
0828	Educational supervision	13.0404	Educational Supervision
0829	Curriculum and instruction	13.0301	Curriculum and Instruction
0830	Reading education (methodology and theory)	13.1315	Reading Education
0831	Art education (methodology and theory)	13.1302	Art Education
0832	Music education (methodology and theory)	13.1312	Music Education
0833	Mathematics education (methodology and theory)	13.1311	Mathematics Education
0834	Science education (methodology and theory)	13.1316	Science Education
0835	Physical education	13.1314	Physical Education
0836	Driver and safety education	13.1304	Driver and Safety Education
0837	Health education (include family life education)	13.1307	Health Education
0838	Business, commerce, and distributive education	13.1303	Business Education
		13.1310	Marketing and Distributive Education
0839	Industrial arts, vocational, and technical education	13.1309	Industrial Arts Education
		13.1319	Technical Education
		13.1320	Trade and Industrial Education
0899	Other, specify	13.0201	Bilingual/Crosscultural Education
		13.0299	Bilingual/Crosscultural Education, Other
		13.0405	Elementary and Secondary Education Administration
		13.0499	Education Administration, Other
		13.0501	Educational Media
		13.0601	Evaluation and Research, General
		13.0605	Elementary and Secondary Research
		13.0699	Evaluation and Research, Other
		13.0701	International and Comparative Education
		13.1099	Special Education, Other
		13.1299	Teacher Education, General Programs, Other
		13.1301	Agricultural Education
		13.1305	English Education
		13.1306	Foreign Languages Education
		13.1308	Home Economics Education
		13.1313	Nutritional Education
		13.1317	Social Science Education
		13.1318	Social Studies Education
		13.1321	Computer Education
		13.1399	Teacher Education, Specific Subject Areas, Other
		13.9999	Education, Other

HEGIS Taxonomy		CIP	
0900	Engineering	14.	Engineering
0901	Engineering, general	14.0101	Engineering, General
0902	Aerospace, aeronautical and astronautical engineering	14.0201	Aerospace, Aeronautical and Astronautical Engineering
0903	Agricultural engineering	14.0301	Agricultural Engineering
0904	Architectural engineering	14.0401	Architectural Engineering
0905	Bioengineering and biomedical engineering	14.0501	Bioengineering and Biomedical Engineering
0906	Chemical engineering (include petroleum refining)	14.0701	Chemical Engineering
0907	Petroleum engineering (exclude petroleum refining)	14.2501	Petroleum Engineering
0908	Civil, construction, and transportation engineering	14.0801	Civil Engineering
0909	Electrical, electronics, and communications engineering	14.1001	Electrical, Electronics, and Communications Engineering
		14.1002	Microelectronic Engineering
0910	Mechanical engineering	14.1901	Mechanical Engineering
0911	Geological engineering	14.1501	Geological Engineering
0912	Geophysical engineering	14.1601	Geophysical Engineering
0913	Industrial and management engineering	14.1701	Industrial Engineering
0914	Metallurgical engineering	14.2001	Metallurgical Engineering
0915	Materials engineering	14.1801	Materials Engineering
0916	Ceramic engineering	14.0601	Ceramic Engineering
0917	Textile engineering	14.2801	Textile Engineering
0918	Mining and mineral engineering	14.2101	Mining and Mineral Engineering
0919	Engineering physics	14.1201	Engineering Physics
0920	Nuclear engineering	14.2301	Nuclear Engineering
0921	Engineering mechanics	14.1101	Engineering Mechanics
0922	Environmental and sanitary engineering	14.1401	Environmental Health Engineering
0923	Naval architectural and marine engineering	14.2201	Naval Architecture and Marine Engineering
0924	Ocean engineering	14.2401	Ocean Engineering
0925	Engineering technologies (baccalaureate and higher programs)	15.	Engineering and Engineering Related Technologies
0999	Other, specify	14.0901	Computer Engineering
		14.1301	Engineering Science
		14.2601	Surveying and Mapping Sciences
		14.2602	Cartography
		14.2701	Systems Engineering
		14.9999	Engineering, Other
1000	Fine and applied arts	50.	Visual and Performing Arts
1001	Fine arts, general	50.0101	Visual and Performing Arts, General
1002	Art (painting, drawing, sculpture)	50.0705	Drawing
		50.0708	Painting
		50.0709	Sculpture
		50.0710	Printmaking
1003	Art history and appreciation	50.0703	Art History and Appreciation
1004	Music (performing, composition, theory)	50.0903	Music Performance
		50.0904	Music Theory and Composition
1005	Music (liberal arts program)	50.0901	Music, General
1006	Music history and appreciation (musicology)	50.0902	Music History and Appreciation
1007	Dramatic arts	50.0501	Dramatic Arts
1008	Dance	50.0301	Dance

HEGIS Taxonomy		CIP	
1009	Applied design (ceramics, weaving, textile design, fashion design, jewelry, metalsmithing, interior decoration, commercial art)	50.0201	Crafts, General
		50.0202	Ceramics
		50.0204	Fiber/Textiles/Weaving
		50.0205	Glass
		50.0206	Metal/Jewelry
		50.0299	Crafts, Other
		50.0401	Design, General
		50.0402	Graphic Design
		50.0403	Illustration Design
		50.0404	Industrial Design
		50.0405	Theatre Design
		50.0499	Design, Other
1010	Cinematography	50.0602	Cinematography/Film
1011	Photography	50.0605	Photography
1099	Other, specify	50.0601	Film Arts, General
		50.0603	Film Animation
		50.0604	Holography
		50.0606	Video
		50.0699	Film Arts, Other
		50.0701	Fine Arts, General
		50.0702	Art Conservation
		50.0704	Arts Management
		50.0706	Intermedia
		50.0799	Fine Arts, Other
		50.0999	Music, Other
		50.9999	Visual and Performing Arts, Other
1100	Foreign languages	16.	Foreign Languages
1101	Foreign languages, general (includes concentration on more than one foreign language without major emphasis on one language)	16.0101	Foreign Languages, Multiple Emphasis
1102	French	16.0901	French
1103	German	16.0501	German
1104	Italian	16.0902	Italian
1105	Spanish	16.0905	Spanish
1106	Russian	16.0402	Russian
1107	Chinese	16.0301	Chinese
1108	Japanese	16.0302	Japanese
1109	Latin	16.0903	Latin
1110	Greek, classical	16.0601	Greek (Classical)
1111	Hebrew	16.1102	Hebrew
1112	Arabic	16.1101	Arabic
1113	Indian (Asiatic)	16.0703	Indic Languages
1114	Scandinavian languages	16.0502	Scandinavian Languages
1115	Slavic languages (other than Russian)	16.0403	Slavic Languages (Other than Russian)
1116	African languages (non-Semitic)	16.0201	African (Non-Semitic) Languages
1199	Other, specify	16.0399	Asiatic Languages, Other
		16.0499	Balto-Slavic Languages, Other
		16.0599	Germanic Languages, Other
		16.0904	Portuguese
		16.0999	Italic Languages, Other
		16.1001	Native American Languages

HEGIS Taxonomy		CIP	
		16.1199	Semitic Languages, Other
		16.9999	Foreign Languages, Other
1200	Health professions	18.	Health Sciences
1201	Health professions, general	18.9999	Health Sciences, Other
1202	Hospital and health care administration	18.0701	Health Care Administration
1203	Nursing (baccalaureate and higher programs)	18.1101	Nursing, General
		18.1102	Anesthetist
		18.1103	Maternal/Child Health
		18.1104	Medical Surgical
		18.1105	Nursing Administration
		18.1106	Psychiatric/Mental Health
		18.1107	Public Health (Nursing)
		18.1199	Nursing, Other
1204	Dentistry, D.D.S. or D.M.D. degree	18.0401	Dentistry, General
1205	Dental specialities (work beyond first-professional) degree, D.D.S. or D.M.D.)	18.0402	Dental Public Health
		18.0403	Endodontics
		18.0404	Oral/Maxial Facial Surgery
		18.0405	Oral Pathology
		18.0406	Orthodontics
		18.0407	Pedodontics
		18.0408	Periodontics
		18.0409	Prosthodontics
		18.0499	Dentistry, Other
1206	Medicine, M.D. degree	18.1001	Medicine, General
1207	Medical specialties (work beyond first-professional degree, M.D.)	18.1002	Allergies and Endomology
		18.1003	Anesthesiology
		18.1004	Colon and Rectal Surgery
		18.1005	Dermatology
		18.1006	Emergency Medicine
		18.1007	Family Practice
		18.1008	Geriatrics
		18.1009	Immunology
		18.1010	Internal Medicine
		18.1011	Neurological Surgery
		18.1012	Nuclear Medicine
		18.1013	Obstetrics and Gynecology
		18.1014	Ophthalmology
		18.1015	Orthodontic Surgery
		18.1016	Orthopedic
		18.1017	Otorhinolaryngology/Otolaryngology
		18.1018	Pathology
		18.1019	Pediatrics
		18.1020	Physical Medicine and Rehabilitation
		18.1021	Plastic Surgery
		18.1022	Preventive Medicine
		18.1023	Psychiatry
		18.1024	Neurology
		18.1025	Radiology
		18.1026	Surgery

HEGIS Taxonomy		CIP	
		18.1027	Thoracic Surgery
		18.1028	Urology
		18.1029	Hematology
		18.1030	Sports Medicine
		18.1099	Medicine, Other
1208	Occupational therapy	17.0807	Occupational Therapy
1209	Optometry	18.1201	Optometry
1210	Osteopathic medicine, D.O. degree	18.1301	Osteopathic Medicine
1211	Pharmacy	18.1401	Pharmacy
1212	Physical therapy	17.0813	Physical Therapy
1213	Dental hygiene (baccalaureate and higher programs)	17.0102	Dental Hygiene
1214	Public health	18.2201	Public Health Laboratory Science
		18.2203	Public Health Education
		18.2204	Public Health Practice and Management
		18.2299	Public Health, Other
1215	Medical record librarianship	18.0703	Medical Records Administration
1216	Podiatry (Pod.D. or D.P.) or podiatric medicine (D.P.M.)	18.1501	Podiatry
1217	Biomedical communication	17.0504	Medical Illustrating
1218	Veterinary medicine (D.V.M. degree)	18.2401	Veterinary Medicine
1219	Veterinary medicine specialties (work beyond first-professional degree, D.V.M.)	18.2401	Veterinary Medicine
1220	Speech pathology and audiology	18.0103	Speech-Language Pathology/Audiology
1221	Chiropractic	18.0301	Chiropractic
1222	Clinical social work (medical and psychiatric and specialized rehabilitation services)	44.0702	Medical Social Work
1223	Medical laboratory technologies (baccalaureate and higher programs)	18.0901	Medical Laboratory
1224	Dental technologies (baccalaureate and higher programs)	17.0103	Dental Laboratory Technology
1225	Radiologic technologies (baccalaureate and higher programs)	17.0207	Medical Radiation Dosimetry
		17.0208	Nuclear Medical Technology
		17.0209	Radiologic (Medical) Technology
1299	Other, specify	17.0409	Population and Family Planning
		18.0101	Audiology
		18.0102	Speech Pathology
		18.0199	Audiology and Speech Pathology, Other
		18.0201	Clinical Anatomy
		18.0202	Clinical Biochemistry
		18.0203	Clinical Microbiology
		18.0204	Clinical Pathology
		18.0205	Clinical Physiology
		18.0206	Clinical Toxicology
		18.0299	Basic Clinical Health Sciences, Other
		18.0702	Health Care Planning
		18.0799	Health Services Administration, Other
		18.1701	Pre-Dentistry
		18.1801,	Pre-Medicine
		18.1901	Pre-Pharmacy
		18.2001	Pre-Veterinary
		18.2202	Epidemiology
		18.9999	Health Sciences, Other

HEGIS Taxonomy		CIP	
1300	Home economics	19.	Home Economics
1301	Home economics, general	19.0101	Home Economics, General
1302	Home decoration and home equipment	19.0601	Human Environment and Housing, General
1303	Clothing and textiles	19.0901	Textiles and Clothing, General
		19.0902	Fashion Design
		19.0904	Textile Science
		19.0999	Textiles and Clothing, Other
1304	Consumer economics and home management	19.0401	Family/Consumer Resource Management, General
1305	Family relations and child development	19.0701	Individual and Family Development, General
1306	Foods and nutrition (include dietetics)	19.0501	Food Sciences and Human Nutrition, General
1307	Institutional management and cafeteria management	20.0601	Institutional, Home Management, and Supporting Services, General
1399	Other, specify	19.0201	Business Home Economics
		19.0301	Family and Community Services
		19.0402	Consumer Science
		19.0499	Family/Consumer Resource Management, Other
		19.0502	Food/Food Sciences
		19.0503	Dietetics/Human Nutritional Services
		19.0599	Food Sciences and Human Nutrition, Other
		19.0602	Household Equipment
		19.0603	Housing
		19.0699	Human Environment and Housing, Other
		19.0703	Family Counseling
		19.0704	Family Relations
		19.0705	Gerontological Services
		19.0799	Individual and Family Development, Other
		19.9999	Home Economics, Other
1400	Law	22.	Law
1401	Law, general	22.0101	Law
1499	Other, specify	22.0102	Pre-Law
		22.0103	Legal Assisting
		22.0199	Law, Other
1500	Letters	23.	Letters
		38.	Philosophy and Religion
1501	English, general	23.0101	English, General
1502	Literature, English	23.0801	Literature, English
1503	Comparative literature	23.0301	Comparative Literature
1504	Classics	23.0201	Classics
1505	Linguistics (include phonetics, semantics, and philology)	23.0601	Linguistics (Includes Phonetics, Semantics, and Philology)
1506	Speech, debate, and forensic science (rhetoric and public address)	23.1001	Speech, Debate, and Forensics
1507	Creative writing	23.0501	Creative Writing
1508	Teaching of English as a foreign language	13.1401	Teaching English as a Second Language/Foreign Language
1509	Philosophy	38.0101	Philosophy

HEGIS Taxonomy		CIP	
1510	Religious studies (exclude theological professions)	38.0201	Religion
1599	Other, specify	23.0401	Composition
		23.0701	Literature, American
		23.1101	Technical and Business Writing
		23.1201	English as a Second Language
		23.9999	Letters, Other
		38.9999	Philosophy and Religion, Other
1600	Library science	25.	Library and Archival Sciences
1601	Library science, general	25.0401	Library Science
1699	Other, specify	25.0101	Library and Archival Sciences, General
		25.0201	Archival Science
		25.0301	Library Assisting
		25.0501	Museology
		25.9999	Library and Archival Sciences, Other
1700	Mathematics	27.	Mathematics
1701	Mathematics, general	27.0101	Mathematics, General
1702	Statistics, mathematical and theoretical	27.0501	Statistics
1703	Applied mathematics	27.0301	Applied Mathematics
1799	Other, specify	27.0201	Actuarial Sciences
		27.0401	Pure Mathematics
		27.9999	Mathematics, Other
1800	Military sciences	28.	Military Sciences
1801	Military science (Army)	28.0301	Military Science (Army)
1802	Naval science (Navy, Marines)	28.0401	Naval Science (Navy, Marine Corp)
1803	Aerospace science (Air Force)	28.0101	Aerospace Science (Air Force)
1899	Other, specify	28.0201	Coast Guard Science
		28.0501	Maritime Science (Merchant Marine)
		28.9999	Military Sciences, Other
1900	Physical sciences	40.	Physical Sciences
1901	Physical sciences, general	40.0101	Physical Sciences, General
1902	Physics, general (exclude biophysics)	40.0801	Physics, General
1903	Molecular physics	40.0802	Atomic/Molecular Physics
1904	Nuclear physics	40.0806	Nuclear Physics
1905	Chemistry, general (exclude biochemistry)	40.0501	Chemistry, General
1906	Inorganic chemistry	40.0503	Inorganic Chemistry
1907	Organic chemistry	40.0504	Organic Chemistry
1908	Physical chemistry	40.0506	Physical Chemistry
1909	Analytical chemistry	40.0502	Analytical Chemistry
1910	Pharmaceutical chemistry	40.0505	Pharmaceutical Chemistry
1911	Astronomy	40.0201	Astronomy
1912	Astrophysics	40.0301	Astrophysics
1913	Atmospheric sciences and meteorology	40.0401	Atmospheric Sciences and Meteorology

HEGIS Taxonomy		CIP	
1914	Geology	40.0601	Geology
1915	Geochemistry	40.0602	Geochemistry
1916	Geophysics and seismology	40.0603	Geophysics and Seismology
1917	Earth sciences, general	40.0703	Earth Sciences
1918	Paleontology	40.0604	Paleontology
1919	Oceanography	40.0702	Oceanography
1920	Metallurgy	40.0701	Metallurgy
1999	Other, specify	40.0599	Chemistry, Other
		40.0699	Geological Sciences, Other
		40.0799	Miscellaneous Physical Sciences, Other
		40.0807	Optics
		40.0808	Solid State Physics
		40.0899	Physics, Other
		40.0901	Planetary Science
		40.9999	Physical Sciences, Other
2000	Psychology	42.	Psychology
2001	Psychology, general	42.0101	Psychology, General
2002	Experimental psychology (animal and human)	42.0801	Experimental Psychology
2003	Clinical psychology	42.0201	Clinical Psychology
2004	Psychology for counseling	42.0601	Counseling Psychology
2005	Social psychology	42.1601	Social Psychology
2006	Psychometrics	42.1301	Psychometrics
2007	Statistics in psychology	42.1501	Quantitative Psychology
2008	Industrial psychology	42.0901	Industrial and Organizational Psychology
2009	Developmental psychology	42.0701	Developmental Psychology
2010	Physiological psychology	42.1101	Physiological Psychology
2099	Other, specify	42.0301	Cognitive Psychology
		42.0401	Community Psychology
		42.0501	Comparative Psychology
		42.1001	Personality Psychology
		42.1201	Psycholinguistics
		42.1401	Psychopharmacology
		42.9999	Psychology, Other
2100	Public affairs and services	43.	Protective Services
		44.	Public Affairs
2101	Community services, general	44.0201	Community Services
2102	Public administration	44.0401	Public Administration
2103	Parks and recreation management	31.0301	Parks and Recreation Management
2104	Social work and helping services (other than clinical social work)	44.0701	Social Work General
		44.0799	Social Work, Other
2105	Law enforcement and corrections (baccalaureate and higher programs)	43.0101	Correctional Administration
		43.0102	Corrections
		43.0103	Criminal Justice Administration
		43.0104	Criminal Justice Studies
		43.0106	Forensic Studies
		43.0107	Law Enforcement
		43.0108	Law Enforcement Administration
		43.0199	Criminal Justice, Other

HEGIS Taxonomy		CIP	
2106	International public service (other than diplomatic service)	44.0301	International Public Service
2199	Other, specify	43.0202	Fire Protection Administration
		43.0299	Fire Protection, Other
		43.9999	Protective Services, Other
		44.0101	Public Affairs, General
		44.0501	Public Policy Studies
		44.0601	Public Sanitation
		44.0699	Public Works, Other
		44.9999	Public Affairs, Other
2200	Social sciences	45.	Social Sciences
2201	Social sciences, general	45.0101	Social Sciences, General
2202	Anthropology	45.0201	Anthropology
2203	Archaeology	45.0301	Archeology
		45.0302	Archeological Technology
2204	Economics	45.0601	Economics
2205	History	45.0801	History
2206	Geography	45.0701	Geography
2207	Political science and government	45.1001	Political Science and Government
2208	Sociology	45.1101	Sociology
2210	International relations	45.0401	Criminology
2211	Afro-American (black culture) studies	45.0901	International Relations
2212	American Indian cultural studies	05.0201	Afro-American (Black) Studies
2213	Mexican-American cultural studies	05.0202	American Indian Studies
2214	Urban studies	05.0203	Hispanic-American Studies
2215	Demography	45.1201	Urban Studies
2299	Other, specify	45.0501	Demography
		45.9999	Social Sciences, Other
2300	Theology		
2301	Theological professions, general	39.	Theology
2302	Religious music	39.0601	Theological Studies
2303	Biblical languages	39.0501	Religious Music
2304	Religious education	39.0101	Biblical Languages
2399	Other, specify	39.0401	Religious Education
		39.0201	Bible Studies
		39.0301	Missionary Studies
		39.9999	Theology, Other
4900	Interdisciplinary Studies	24.	Liberal/General Studies
		30.	Multi/Interdisciplinary Studies
4901	General liberal arts and sciences	24.0102	General Studies
4902	Biological and physical sciences	24.0101	Liberal Arts and Sciences
4903	Humanities and social sciences	30.0101	Biological and Physical Sciences
4904	Engineering and other disciplines	30.0401	Humanities and Social Sciences
4999	Other, specify	30.0301	Engineering and Other Disciplines

HEGIS Taxonomy		CIP	
		24.0199	Liberal/General Studies, Other
		30.0201	Clinical Pastoral Care
		30.0501	Peace Studies
		30.0601	Systems Science
		30.0701	Women's Studies
		30.0801	Mathematics and Computer Science
		30.0901	Imaging Science
		30.9999	Multi/Interdisciplinary Studies, Other
5000	Business and commerce technologies	07.	Business (Administrative Support)
5001	Business and commerce technologies, general	07.9999	Business (Administrative Support), Other
5002	Accounting technologies	07.0101	Accounting, Bookkeeping, and Related Programs, General
		07.0102	Accounting and Computing
		07.0103	Bookkeeping
		07.0104	Machine Billing, Bookkeeping, and Computing
		07.0199	Accounting, Bookkeeping, and Related Programs, Other
5003	Banking and finance technologies	07.0201	Banking and Related Financial Programs, General
		07.0203	Insurance Clerk
		07.0205	Teller
		07.0299	Banking and Related Financial Programs, Other
5004	Marketing, distribution, purchasing, business, and industrial management technologies	08.	Marketing and Distribution
5005	Secretarial technologies (include office machines training)	07.0601	Secretarial and Related Programs, General
		07.0602	Court Reporting
		07.0603	Executive Secretarial
		07.0604	Legal Secretarial
		07.0605	Medical Secretarial
		07.0606	Secretarial
		07.0607	Stenographic
		07.0699	Secretarial and Related Programs, Other
		07.0701	Typing, General Office, and Related Programs, General
		07.0702	Clerk-Typist
		07.0703	Correspondence Clerk
		07.0704	Duplicating Machine Operation
		07.0705	General Office Clerk
		07.0707	Receptionist and Communication Systems Operation
		07.0708	Shipping, Receiving, and Stock Clerk
		07.0709	Traffic, Rate, and Transportation Clerk
		07.0799	Typing, General Office, and Related Programs, Other
		07.0801	Word Processing
5006	Personal service technologies (stewardess, cosmetologist, etc.)	12.0401	Personal Services, General
		12.0402	Barbering/Hairstyling
		12.0403	Cosmetology
		12.0404	Electrolysis
		12.0405	Massage
		12.0406	Make-up Artistry
		12.0499	Personal Services, Other
		49.0106	Flight Attendants
5007	Photography technologies	10.0103	Photographic Technology
		48.0204	Commercial Photography

HEGIS Taxonomy		CIP	
5008	Communications and broadcasting technologies (radio/television, newspapers)	10.0102	Motion Picture Technology
		10.0104	Radio and Television Production and Broadcasting Technology
		10.0105	Sound Recording Technology
		10.0106	Video Technology
		10.0199	Communications Technologies, Other
5009	Printing and lithography technologies	48.0206	Lithography, Photography, and Platemaking
		48.0208	Printing Press Operations
5010	Hotel and restaurant management technologies	08.0901	Hospitality and Recreation Marketing, General
		08.0902	Marketing of Hotel/Motel Services
		08.0903	Marketing of Recreational Services
		08.0904	Recreational Products Marketing
		08.0905	Waiter/Waitress and Related Services
		08.0999	Hospitality and Recreation Marketing, Other
5011	Transportation and public utility technologies	08.1101	Transportation and Travel Marketing, General
		08.1102	Transportation Marketing
		08.1104	Tourism
		08.1105	Travel Services Marketing
		08.1106	Warehouse Services Marketing
		08.1199	Transportation and Travel Marketing, Other
		44.0699	Public Works, Other
5012	Applied arts, graphic arts, and fine arts technologies (include advertising design)	50.9999	Visual and Performing Arts, Other
5099	Other, specify	07.0401	Office Supervision and Management
		07.0501	Pesonnel and Training Programs, General
		07.0502	Training Assisting
		07.0503	Personnel Assisting
		07.0599	Personnel and Training Programs, Other
		07.9999	Business (Administrative Support), Other
		12.0101	Drycleaning and Laundering Services
		12.0202	Bartending
		12.0203	Card Dealing
		12.0204	Umpiring
		12.0299	Entertainment Services, Other
		12.0301	Funeral Services
		12.0999	Consumer, Personal and Miscellaneous Services, Other

HEGIS Taxonomy		CIP	
5100	Data processing technologies	07.03	Business Data Processing and Related Programs
5101	Data processing technologies, general	07.0301	Business Data Processing and Related Programs, General
5102	Keypunch operator and other input preparation technologies	07.0303	Business Data Entry Equipment Operation
5103	Computer programmer technologies	07.0305	Business Data Programming
5104	Computer operator and peripheral equipment operation technologies	07.0302 07.0304	Business Computer and Console Operation Business Data Peripheral Equipment Operation
5105	Data processing equipment maintenance technologies	47.0102 47.0104 47.0199	Business Machine Repair Computer Electronics Electrical and Electronics Equipment Repair, Other
5199	Other, specify	07.0306 07.0399	Business Systems Analysis Business Data Processing and Related Programs, Other
5200	Health services and paramedical technologies	17.	Allied Health
5201	Health services assistant technologies, general	17.9999	Allied Health, Other
5202	Dental assistant technologies	17.0101	Dental Assisting
5203	Dental hygiene technologies	17.0102	Dental Hygiene
5204	Dental laboratory technologies	17.0103	Dental Laboratory Technology
5205	Medical or biological laboratory assistant technologies	17.0309 17.0399	Medical Laboratory Technology Medical Laboratory Technologies, Other
5206	Animal laboratory assistant technologies	17.0512	Veterinarian Assisting
5207	Radiologic technologies (X-ray, etc.)	17.0209	Radiologic (Medical) Technology
5208	Nursing, R.N. (less than 4-year program)	18.1101	Nursing, General
5209	Nursing, practical (L.P.N. or L.V.N. less than 4-year program)	17.0605	Practical Nursing
5210	Occupational therapy technologies	17.0808 17.0809	Occupational Therapy Assisting Occupational Therapy Aide
5211	Surgical technologies	17.0211	Surgical Technology
5212	Optical technologies (include ocular care, opthalmic, optometric technologies)	17.0701 17.0705 17.0799	Ophthalmic Dispensing Optometric Technology Ophthalmic Services, Other
5213	Medical record technologies	17.0506	Medical Records Technology
5214	Medical assistant and medical office assistant technologies	17.0503	Medical Assisting
5215	Inhalation therapy technologies	17.0210	Respiratory Therapy Technology
5216	Psychiatric technologies (include mental health aide programs)	17.0401 17.0402 17.0404 17.0405 17.0406 17.0407 17.0408 17.0410 17.0499	Alcohol/Drug Abuse Specialty Community Health Work Home Health Aide Mental Health/Human Services Assisting Mental Health/Human Services Technology Rehabilitation Counseling Therapeutic Child Care Work Sign Language Interpreting Mental Health/Human Services, Other
5217	Electro diagnostic technologies (include E.K.G., E.E.G., etc.)	17.0203 17.0204	Electrocardiograph Technology Electroencephalograph Technology
5218	Institutional management technologies (rest homes, etc.)	17.0606 17.9999	Health Unit Management Allied Health, Other
5219	Physical therapy technologies	17.0814 17.0815	Physical Therapy Aide Physical Therapy Assisting
5299	Other, specify	17.9999	Allied Health, Other

HEGIS Taxonomy		CIP	
5300	Mechanical and engineering Technologies	15.	Engineering and Engineering Related Technologies
5301	Mechanical and engineering technologies, general	15.9999	Engineering and Engineering Related Technologies, Other
5302	Aeronautical and aviation technologies	15.0801	Aeronautical Technology
5303	Engineering graphics (tool and machine drafting and design)	48.0105	Mechanical Drafting
5304	Architectural drafting technologies	48.0102	Architectural Drafting
5305	Chemical technologies (include plastics)	41.0301	Chemical Technology
5306	Automotive technologies	15.0803	Automotive Technology
5307	Diesel technologies	47.0605	Diesel Engine Mechanics
5308	Welding technologies	48.0508	Welding
5309	Civil technologies (surveying, photogrammetry, etc.)	15.0201	Civil Technology
		15.0203	Surveying and Mapping Technology
5310	Electronics and machine technologies (television, appliance, office machine repair, etc.)	15.0301	Computer Technology
		15.0302	Electrical Technology
		15.0303	Electronic Technology
		15.0304	Laser Electro-Optic Technology
		15.0399	Electrical and Electronic Technologies, Other
		47.0101	Electrical and Electronics Equipment Repair, General
		47.0103	Communication Electronics
		47.0105	Industrial Electronics
		47.0106	Major Appliance Repair
		47.0107	Motor Repair
		47.0108	Small Appliance Repair
		47.0109	Vending and Recreational Machine Repair
		47.0199	Electrical and Electronics Equipment Repair, Other
5311	Electromechanical technologies	15.0403	Electromechanical Technology
5312	Industrial technologies	15.0603	Industrial Technology
5313	Textile technologies	15.0609	Textile Technology
5314	Instrumentation technologies	15.0404	Instrumentation Technology
5315	Mechanical technologies	15.0805	Mechanical Design Technology
5316	Nuclear technologies	41.0201	Nuclear Materials Handling Technology
		41.0202	Nuclear Power Plant Operation Technology
		41.0203	Nuclear Power Plant Radiation Control Technology
		41.0204	Radiologic (Physical) Technology
		41.0299	Nuclear Technologies, Other
5317	Construction and building technologies (carpentry, electrical work, plumbing, sheet metal, air conditioning, heating, etc.)	46.	Construction Trades
		47.	Mechanics and Repairers
		48.	Precision Production
5399	Other, specify	15.9999	Engineering and Engineering Related Technologies, Other
		29.0101	Military Technologies
		29.9999	Military Technologies, Other
5400	Natural science technologies	41.	Science Technologies
5401	Natural science technologies, general	41.9999	Science Technologies, Other
5402	Agricultural technologies (include horticulture)	01.	Agribusiness and Agricultural Production
5403	Forestry and wildlife technologies (include fisheries)	03.0301	Fishing and Fisheries, General
		03.0401	Forestry Production and Processing, General
		03.0404	Forest Products Processing Technology
		03.0405	Logging

HEGIS Taxonomy		CIP	
5404	Food services technologies	20.0499	Food Production, Management, and Services, Other
5405	Home economics technologies	20.	Vocational Home Economics
5406	Marine and oceanographic technologies	41.0102	Oceanographic (Biological) Technology
		41.0305	Oceanographic (Physical) Technology
5407	Laboratory technologies, general	41.9999	Science Technologies, Other
5408	Sanitation and public health inspection technologies (environmental health technologies)	15.0599	Environmental Control Technologies, Other
5499	Other, specify	41.0101	Biological Laboratory Technology
		41.0199	Biological Technologies, Other
		41.0302	Geological Technology
		41.0303	Metallurgical Technology
		41.0304	Meterological Technology
		41.0399	Physical Science Technologies, Other
		41.9999	Science Technologies, Other
5500	Public service related technologies	43.	Protective Services
		44.	Public Affairs
		49.	Transportation and Material Moving
5501	Public service technologies, general	43.9999	Protective Services, Other
5502	Bible study or religion-related occupations	39.9999	Theology, Other
5503	Education technologies (teacher aide and 2-year teacher training programs)	10.0101	Educational Media Technology
		13.0202	Bilingual Education Assisting
		13.1501	Teacher Assisting
5504	Library assistant technologies	25.0301	Library Assisting
5505	Police, law enforcement, corrections technologies	43.0102	Corrections
		43.0105	Criminal Justice Technology
		43.0107	Law Enforcement
5506	Recreation and social work related technologies	31.0201	Outdoor Recreation
		44.0201	Community Services
5507	Fire control technology	43.0201	Fire Control and Safety Technology
		43.0203	Firefighting
5508	Public administration and management technologies	44.9999	Public Affairs, Other
5599	Other, specify	43.0109	Security Services
		43.9999	Protective Services, Other
		44.9999	Public Affairs, Other
		49.9999	Transportation and Material Moving, Other

Appendix C

LIST OF OCCUPATIONALLY SPECIFIC PROGRAMS

01	AGRIBUSINESS AND AGRICULTURAL PRODUCTION
01.0101	Agricultural Business and Management, General
01.0102	Agricultural Business
01.0104	Farm and Ranch Management
01.0199	Agricultural Business and Management, Other
01.0201	Agricultural Mechanics, General
01.0202	Agricultural Electrification, Power, and Controls
01.0203	Agricultural Mechanics, Construction, and Maintenance Skills
01.0204	Agricultural Power Machinery
01.0205	Agricultural Structures, Equipment, and Facilities
01.0206	Soil and Water Mechanical Practices
01.0299	Agricultural Mechanics, Other
01.0301	Agricultural Production, General
01.0302	Animal Production
01.0303	Aquaculture
01.0304	Crop Production
01.0305	Game Farm Management
01.0399	Agricultural Production, Other
01.0401	Agricultural Products and Processing, General
01.0402	Food Products
01.0499	Agricultural Products and Processing, Other
01.0501	Agricultural Services and Supplies, General
01.0502	Agricultural Services
01.0503	Agricultural Supplies Marketing
01.0504	Pet Grooming
01.0505	Animal Training
01.0506	Horseshoeing
01.0507	Horse Handling and Care
01.0599	Agricultural Services and Supplies, Other
01.0601	Horticulture, General
01.0602	Arboriculture
01.0603	Ornamental Horticulture
01.0604	Greenhouse Operation and Management
01.0605	Landscaping
01.0606	Nursery Operation and Management
01.0607	Turf Management
01.0699	Horticulture, Other
01.9999	Agribusiness and Agricultural Production, Other
02	AGRICULTURAL SCIENCES
02.0203	Animal Health
03	RENEWABLE NATURAL RESOURCES
03.0101	Renewable Natural Resources, General
03.0201	Conservation and Regulation, General
03.0202	Conservation
03.0203	Resources Protection and Regulation
03.0299	Conservation and Regulation, Other
03.0301	Fishing and Fisheries
03.0401	Forestry Production and Processing, General
03.0402	Forest Production
03.0403	Forest Products Utilization
03.0404	Forest Products Processing Technology
03.0405	Logging
03.0499	Forestry Production and Processing, Other
03.0601	Wildlife Management
03.9999	Renewable Natural Resources, Other
04	ARCHITECTURE AND ENVIRONMENTAL DESIGN
04.0501	Interior Design
06	BUSINESS AND MANAGEMENT
06.0401	Business Administration and Management, General
06.0701	Hotel/Motel Management
06.0702	Recreational Enterprises Management
06.0703	Resort Management
06.0704	Restaurant Management
06.0705	Transportation Management
06.0799	Institutional Management, Other
06.1101	Labor/Industrial Relations
06.1701	Real Estate
06.1801	Small Business Management and Ownership
06.1901	Taxation
06.2001	Trade and Industrial Supervision and Management
06.9999	Business and Management, Other
07	BUSINESS (ADMINISTRATIVE SUPPORT)
07.0101	Accounting, Bookkeeping, and Related Programs, General
07.0102	Accounting and Computing
07.0103	Bookkeeping
07.0104	Machine Billing, Bookkeeping, and Computing
07.0199	Accounting, Bookkeeping, and Related Programs, Other
07.0201	Banking and Related Financial Programs, General
07.0203	Insurance Clerk
07.0205	Teller
07.0299	Banking and Related Financial Programs, Other
07.0301	Business Data Processing and Related Programs, General
07.0302	Business Computer and Console Operation
07.0303	Business Data Entry Equipment Operation
07.0304	Business Data Peripheral Equipment Operation
07.0305	Business Data Programming
07.0306	Business Systems Analysis
07.0399	Business Data Processing and Related Programs, Other
07.0401	Office Supervision and Management
07.0501	Personnel and Training Programs, General
07.0502	Training Assisting
07.0503	Personnel Assisting
07.0599	Personnel and Training Programs, Other
07.0601	Secretarial and Related Programs, General
07.0602	Court Reporting
07.0603	Executive Secretarial
07.0604	Legal Secretarial
07.0605	Medical Secretarial

07.0606	Secretarial
07.0607	Stenographic
07.0699	Secretarial and Related Programs, Other
07.0701	Typing, General Office, and Related Programs, General
07.0702	Clerk-Typist
07.0703	Correspondence Clerk
07.0704	Duplicating Machine Operation
07.0705	General Office Clerk
07.0707	Receptionist and Communication Systems Operation
07.0708	Shipping, Receiving, and Stock Clerk
07.0709	Traffic, Rate, and Transportation Clerk
07.0799	Typing, General Office, and Related Programs, Other
07.0801	Word Processing
07.9999	Business (Administrative Support), Other
08	MARKETING AND DISTRIBUTION
08.0101	Apparel and Accessories Marketing, General
08.0102	Fashion Merchandising
08.0103	Fashion Modeling
08.0104	Footwear Marketing
08.0105	Jewelry Marketing
08.0199	Apparel and Accessories Marketing, Other
08.0201	Business and Personal Services Marketing, General
08.0202	Display
08.0203	Marketing of Business or Personal Services
08.0299	Business and Personal Services Marketing, Other
08.0301	Entrepreneurship
08.0401	Financial Services Marketing
08.0501	Floristry, Farm and Garden Supplies Marketing, General
08.0502	Farm and Garden Supplies Marketing
08.0503	Floristry
08.0599	Floristry, Farm and Garden Supplies Marketing, Other
08.0601	Food Marketing, General
08.0602	Convenience Store Marketing
08.0603	Specialty Foods Marketing
08.0604	Supermarket Marketing
08.0605	Wholesale Food Marketing
08.0699	Food Marketing, Other
08.0701	Auctioneering
08.0702	Industrial Sales
08.0703	International Marketing
08.0704	Purchasing
08.0705	Retailing
08.0706	Sales
08.0707	Wholesaling
08.0708	Marketing, General
08.0799	General Marketing, Other
08.0801	Home and Office Products Marketing, General
08.0802	Appliance Marketing
08.0803	Building Materials Marketing
08.0805	Furniture Marketing
08.0806	Hardware Marketing
08.0807	Office Products and Equipment Marketing
08.0808	Specialty Home Furnishings Marketing
08.0899	Home and Office Products Marketing, Other
08.0901	Hospitality and Recreation Marketing, Other
08.0902	Marketing of Hotel/Motel Services
08.0903	Marketing of Recreational Services
08.0904	Recreational Products Marketing
08.0905	Waiter/Waitress and Related Services
08.0999	Hospitality and Recreation Marketing, Other
08.1001	Insurance Marketing
08.1101	Transportation and Travel Marketing, General
08.1102	Transportation Marketing
08.1104	Tourism
08.1105	Travel Services Marketing
08.1106	Warehouse Services Marketing
08.1199	Transportation and Travel Marketing, Other
08.1201	Vehicles and Petroleum Marketing, General
08.1203	Automotive Vehicles and Accessories Marketing
08.1204	Petroleum Wholesaling
08.1205	Recreational Vehicles and Accessories Marketing
08.1206	Service Station Retailing
08.1207	Vehicle Rental and Leasing
08.1299	Vehicles and Petroleum Marketing, Other
08.9999	Marketing and Distribution, Other
09	COMMUNICATIONS
09.0201	Advertising
09.0401	Journalism (Mass Communications)
10	COMMUNICATIONS TECHNOLOGIES
10.0101	Educational Media Technology
10.0102	Motion Picture Technology
10.0103	Photographic Technology
10.0104	Radio and Television Production and Broadcasting Technology
10.0105	Sound Recording Technology
10.0106	Video Technology
10.0199	Communications Technologies, Other
11	COMPUTER AND INFORMATION SCIENCES
11.0201	Computer Programming
11.0301	Data Processing
11.0401	Information Sciences and Systems
11.0601	Microcomputer Applications
11.9999	Computer and Information Sciences, Other
12	CONSUMER, PERSONAL AND MISCELLANEOUS SERVICES
12.0101	Drycleaning and Laundering Services
12.0202	Bartending
12.0203	Card Dealing
12.0204	Umpiring
12.0299	Entertainment Services, Other
12.0301	Funeral Services
12.0401	Personal Services, General
12.0402	Barbering/Hairstyling
12.0403	Cosmetology

12.0404	Electrolysis
12.0405	Massage
12.0406	Make-up Artistry
12.0499	Personal Services, Other
12.9999	Consumer, Personal and Miscellaneous Services, Other

13 EDUCATION

13.0202	Bilingual Education Assisting
13.1501	Teacher Assisting

15 ENGINEERING AND ENGINEERING RELATED TECHNOLOGIES

15.0101	Architectural Design and Construction Technology
15.0102	Architectural Interior Design Technology
15.0199	Architectural Technologies, Other
15.0201	Civil Technology
15.0202	Drafting and Design Technology
15.0203	Surveying and Mapping Technology
15.0204	Urban Planning Technology
15.0299	Civil Technologies, Other
15.0301	Computer Technology
15.0302	Electrical Technology
15.0303	Electronic Technology
15.0304	Laser Electro-Optic Technology
15.0399	Electrical and Electronic Technologies, Other
15.0401	Biomedical Equipment Technology
15.0402	Computer Servicing Technology
15.0403	Electromechanical Technology
15.0404	Instrumentation Technology
15.0405	Robotics Technology
15.0499	Electromechanical Instrumentation and Maintenance Technologies, Other
15.0501	Air Conditioning, Heating, and Refrigeration Technology
15.0502	Air Pollution Control Technology
15.0503	Energy Conservation and Use Technology
15.0504	Sanitation Technology
15.0505	Solar Heating and Cooling Technology
15.0506	Water and Wastewater Technology
15.0599	Environmental Control Technologies, Other
15.0602	Food Processing Technology
15.0603	Industrial Technology
15.0606	Optical Technology
15.0607	Plastic Technology
15.0609	Textile Technology
15.0610	Welding Technology
15.0699	Industrial Production Technologies, Other
15.0701	Occupational Safety and Health Technology
15.0702	Quality Control Technology
15.0799	Quality Control and Safety Technologies, Other
15.0801	Aeronautical Technology
15.0803	Automotive Technology
15.0804	Marine Propulsion Technology
15.0805	Mechanical Design Technology
15.0899	Mechanical and Related Technologies, Other
15.0901	Coal Mining Technology
15.0902	Mining (Excluding Coal) Technology
15.0903	Petroleum Technology
15.0999	Mining and Petroleum Technologies, Other
15.1001	Construction Technology, Other
15.9999	Engineering and Engineering-Related Technologies, Othc

17 ALLIED HEALTH

17.0101	Dental Assisting
17.0102	Dental Hygiene
17.0103	Dental Laboratory Technology
17.0199	Dental Services, Other
17.0201	Cardiovascular Technology
17.0202	Dialysis Technology
17.0203	Electrocardiograph Technology
17.0204	Electroencephalograph Technology
17.0205	Emergency Medical Technology-Ambulance
17.0206	Emergency Medical Technology-Paramedic
17.0207	Medical Radiation Dosimetry
17.0208	Nuclear Medical Technology
17.0209	Radiologic (Medical) Technology
17.0210	Respiratory Therapy Technology
17.0211	Surgical Technology
17.0212	Diagnostic Medical Sonography
17.0299	Diagnostic and Treatment Services, Other
17.0301	Blood Bank Technology
17.0302	Chemistry Technology
17.0303	Clinical Animal Technology
17.0304	Clinical Laboratory Aide
17.0305	Clinical Laboratory Assisting
17.0306	Cytotechnology
17.0307	Hematology Technology
17.0308	Histologic Technology
17.0309	Medical Laboratory Technology
17.0310	Medical Technology
17.0311	Microbiology Technology
17.0399	Medical Laboratory Technologies, Other
17.0401	Alcohol/Drug Abuse Specialty
17.0402	Community Health Work
17.0404	Home Health Aide
17.0405	Mental Health/Human Services Assisting
17.0406	Mental Health/Human Services Technology
17.0407	Rehabilitation Counseling
17.0408	Therapeutic Child Care Work
17.0409	Population and Family Planning
17.0410	Sign Language Interpreting
17.0499	Mental Health/Human Services, Other
17.0502	Central Supply Technology
17.0503	Medical Assisting
17.0504	Medical Illustrating
17.0505	Medical Office Management
17.0506	Medical Records Technology
17.0507	Pharmacy Assisting
17.0508	Physician Assisting
17.0510	Podiatric Assisting
17.0512	Veterinarian Assisting
17.0513	Health Unit Coordinating

17.0514	Chiropractic Assisting
17.0599	Miscellaneous Allied Health Services, Other
17.0601	Geriatric Aide
17.0602	Nursing Assisting
17.0605	Practical Nursing
17.0606	Health Unit Management
17.0699	Nursing-Related Services, Other
17.0701	Ophthalmic Dispensing
17.0705	Optometric Technology
17.0799	Ophthalmic Services, Other
17.0801	Art Therapy
17.0802	Corrective Therapy
17.0803	Dance Therapy
17.0804	Exercise Physiology
17.0806	Music Therapy
17.0807	Occupational Therapy
17.0808	Occupational Therapy Assisting
17.0809	Occupational Therapy Aide
17.0811	Orthotics/Prosthetics
17.0812	Orthopedic Assisting
17.0813	Physical Therapy
17.0814	Physical Therapy Aide
17.0815	Physical Therapy Assisting
17.0816	Recreational Therapy
17.0817	Recreational Therapy Assisting
17.0818	Respiratory Therapy
17.0819	Respiratory Therapy Assisting
17.0820	Speech/Hearing Therapy Aide
17.0822	Recreational Therapy Aide
17.0899	Rehabilitation Services, Other
17.9999	Allied Health, Other
18	HEALTH SCIENCES
18.1101	Nursing, General
20	VOCATIONAL HOME ECONOMICS
20.0201	Child Care and Guidance Management and Services, General
20.0202	Child Care Aide/Assisting
20.0203	Child Care Management
20.0204	Foster Care/Family Care
20.0299	Child Care and Guidance Management and Services, Other
20.0301	Clothing, Apparel, and Textiles Mgmt., Production, and Services, Gen.
20.0302	Clothing Maintenance Aide
20.0303	Commercial Garment and Apparel Construction
20.0304	Custom Apparel/Garment Seamstress
20.0305	Custom Tailoring and Alteration
20.0306	Fashion/Fabric Coordination
20.0308	Wedding/Specialty Consulting
20.0399	Clothing, Apparel, and Textiles Mgmt., Production, and Services, Other
20.0401	Food Production, Management, and Services, General
20.0402	Baking
20.0403	Chef/Cook
20.0404	Dietetic Aide/Assisting
20.0405	Food Catering
20.0408	School Food Service
20.0499	Food Production, Management, and Services, Other
20.0501	Home Furnishings and Equipment Mgmt., Production, & Services, General
20.0502	Custom Drapery and Window Treatment Design/Making
20.0503	Custom Slipcovering and Upholstering
20.0504	Floral Design
20.0505	Home Decorating
20.0506	Home Furnishings Aide
20.0507	Home-Service Assisting
20.0599	Home Furnishings and Equipment Mgmt., Production, and Services, Other
20.0601	Institutional, Home Management, and Supporting Services, General
20.0602	Companion to the Aged
20.0603	Consumer Aide/Assisting
20.0604	Custodial Services
20.0605	Executive Housekeeping
20.0606	Homemaker's Aide
20.0699	Institutional, Home Management, and Supporting Services, Other
20.9999	Vocational Home Economics, Other
22	LAW
22.0103	Legal Assisting
25	LIBRARY AND ARCHIVAL SCIENCES
25.0301	Library Assisting
31	PARKS AND RECREATION
31.0201	Outdoor Recreation
31.0301	Parks and Recreation Management
31.9999	Parks and Recreation, Other
41	SCIENCE TECHNOLOGIES
41.0101	Biological Laboratory Technology
41.0102	Oceanographic (Biological) Technology
41.0199	Biological Technologies, Other
41.0201	Nuclear Materials Handling Technology
41.0202	Nuclear Power Plant Operation Technology
41.0203	Nuclear Power Plant Radiation Control Technology
41.0204	Radiologic (Physical) Technology
41.0299	Nuclear Technologies, Other
41.0301	Chemical Technology
41.0302	Geological Technology
41.0303	Metallurgical Technology
41.0304	Meteorological Technology
41.0305	Oceanographic (Physical) Technology
41.0399	Physical Science Technologies, Other
41.9999	Science Technologies, Other
43	PROTECTIVE SERVICES
43.0101	Correctional Administration
43.0102	Corrections

43.0103	Criminal Justice Administration
43.0104	Criminal Justice Studies
43.0105	Criminal Justice Technology
43.0106	Forensic Studies
43.0107	Law Enforcement
43.0108	Law Enforcement Administration
43.0109	Security Services
43.0199	Criminal Justice, Other
43.0201	Fire Control and Safety Technology
43.0202	Fire Protection Administration
43.0203	Firefighting
43.0299	Fire Protection, Other
43.9999	Protective Services, Other

46 CONSTRUCTION TRADES

46.0101	Brickmasonry, Stonemasonry, and Tile Setting, General
46.0102	Brickmasonry, Block, and Stonemasonry
46.0103	Tile Setting
46.0199	Brickmasonry, Stonemasonry, and Tile Setting, Other
46.0201	Carpentry
46.0301	Electrical and Power Transmission Installation, General
46.0302	Electrician
46.0303	Lineworker
46.0399	Electrical and Power Transmission Installation, Other
46.0401	Building and Property Maintenance
46.0402	Concrete Placing and Finishing
46.0403	Construction Inspection
46.0404	Drywall Installation
46.0405	Floor Covering Installation
46.0406	Glazing
46.0407	Insulation Installation
46.0408	Painting and Decorating
46.0409	Plastering
46.0410	Roofing
46.0499	Miscellaneous Construction Trades and Property Maintenance, Other
46.0501	Plumbing, Pipefitting, and Steamfitting, General
46.0502	Pipefitting and Steamfitting
46.0503	Plumbing
46.0599	Plumbing, Pipefitting,and Steamfitting, Other
46.9999	Construction Trades, Other

47 MECHANICS AND REPAIRERS

47.0101	Electrical and Electronics Equipment Repair, General
47.0102	Business Machine Repair
47.0103	Communication Electronics
47.0104	Computer Electronics
47.0105	Industrial Electronics
47.0106	Major Appliance Repair
47.0107	Motor Repair
47.0108	Small Appliance Repair
47.0109	Vending and Recreational Machine Repair
47.0199	Electrical and Electronics Equipment Repair, Other
47.0201	Heating, Air Conditioning, and Refrigeration Mechanics, General
47.0202	Cooling and Refrigeration
47.0203	Heating and Air Conditioning
47.0301	Industrial Equipment Maintenance and Repair, General
47.0302	Heavy Equipment Maintenance and Repair
47.0303	Industrial Machinery Maintenance and Repair
47.0304	Mine Equipment Maintenance and Repair
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47.0105	Industrial Electronics
14.1701	Industrial Engineering
47.0303	Industrial Machinery Maintenance and Repair
47.0301	Industrial Equipment Maintenance and Repair, General
47.0399	Industrial Equipment Maintenance and Repair, Other
15.0699	Industrial Production Technologies, Other
08.0702	Industrial Sales
15.0603	Industrial Technology
11.0401	Information Sciences and Systems
40.0503	Inorganic Chemistry
06.0799	Institutional Management, Other
20.0601	Institutional, Home Management, and Supporting Services, General
20.0699	Institutional, Home Management, and Supporting Services, Other
15.0404	Instrumentation Technology
46.0407	Insulation Installation
06.0801	Insurance and Risk Management
07.0203	Insurance Clerk
08.1001	Insurance Marketing
04.0501	Interior Design
50.0706	Intermedia
18.1010	Internal Medicine
01.0701	International Agriculture
13.0701	International and Comparative Education
06.0901	International Business Management
08.0703	International Marketing
44.0301	International Public Service
45.0901	International Relations
35.0101	Interpersonal Skills, General
35.0199	Interpersonal Skills, Other
06.1001	Investments and Securities
05.0204	Islamic Studies
16.0902	Italian
16.0999	Italic Languages, Other
16.0302	Japanese
48.0602	Jewelry Design, Fabrication, and Repair
08.0105	Jewelry Marketing
05.0205	Jewish Studies
32.0105	Job Seeking/Changing Skills
09.0401	Journalism (Mass Communications)
13.1203	Junior High/Middle School Education
06.1101	Labor/Industrial Relations
04.0801	Land Use Management and Reclamation
04.0601	Landscape Architecture
01.0605	Landscaping
15.0304	Laser Electro-Optic Technology
16.0903	Latin
05.0107	Latin American Studies
22.0101	Law
43.0107	Law Enforcement
43.0108	Law Enforcement Administration
22.0199	Law, Other
48.0399	Leatherworking and Upholstering, Other
48.0301	Leatherworking and Upholstery, General
22.0103	Legal Assisting
07.0604	Legal Secretarial
36.0101	Leisure and Recreational Activities, General
36.0199	Leisure and Recreational Activities, Other
23.9999	Letters, Other
24.0101	Liberal Arts and Sciences
24.0199	Liberal/General Studies, Other
25.0101	Library and Archival Sciences, General
25.9999	Library and Archival Sciences, Other
25.0301	Library Assisting
25.0401	Library Science
26.9999	Life Sciences, Other
46.0303	Lineworker
23.0601	Linguistics (Includes Phonetics, Semantics, and Philology)
23.0701	Literature, American
23.0801	Literature, English
48.0206	Lithography, Photography, and Platemaking
02.0208	Livestock
47.0403	Locksmithing and Safe Repair
03.0405	Logging
07.0104	Machine Billing, Bookkeeping, and Computing

48.0503	Machine Tool Operation/Machine Shop
47.0106	Major Appliance Repair
12.0406	Make-up Artistry
06.1201	Management Information Systems
06.1303	Management Science, General
06.1399	Management Science, Other
21.0107	Manufacturing/Materials Processing
49.0305	Marina Operations
26.0607	Marine Biology
49.0306	Marine Maintenance
15.0804	Marine Propulsion Technology
28.0501	Maritime Science (Merchant Marine)
08.9999	Marketing and Distribution, Other
13.1310	Marketing and Distributive Education
06.1401	Marketing Management
06.1499	Marketing Management and Research, Other
08.0203	Marketing of Business or Personal Services
08.0902	Marketing of Hotel/Motel Services
08.0903	Marketing of Recreational Services
06.1402	Marketing Research
08.0708	Marketing, General
12.0405	Massage
49.0203	Material Handling
14.1801	Materials Engineering
18.1103	Maternal/Child Health
30.0801	Mathematics and Computer Science
13.1311	Mathematics Education
27.0101	Mathematics, General
27.9999	Mathematics, Other
48.0402	Meatcutting
15.0899	Mechanical and Related Technologies, Other
15.0805	Mechanical Design Technology
48.0105	Mechanical Drafting
14.1901	Mechanical Engineering
47.9999	Mechanics and Repairers, Other
17.0503	Medical Assisting
17.0504	Medical Illustrating
18.0901	Medical Laboratory
17.0399	Medical Laboratory Technologies, Other
17.0309	Medical Laboratory Technology
17.0505	Medical Office Management
17.0207	Medical Radiation Dosimetry
18.0703	Medical Records Administration
17.0506	Medical Records Technology
07.0605	Medical Secretarial
44.0702	Medical Social Work
18.1104	Medical Surgical
17.0310	Medical Technology
18.1001	Medicine, General
18.1099	Medicine, Other
17.0405	Mental Health/Human Services Assisting
17.0406	Mental Health/Human Services Technology
17.0499	Mental Health/Human Services, Other
48.0504	Metal Fabrication
48.0505	Metal Patternmaking
50.0206	Metal/Jewelry
14.2001	Metallurgical Engineering
41.0303	Metallurgical Technology
40.0701	Metallurgy
41.0304	Meteorological Technology
26.0501	Microbiology
17.0311	Microbiology Technology
11.0601	Microcomputer Applications
14.1002	Microelectronic Engineering
05.0108	Middle Eastern Studies
28.0301	Military Science (Army)
28.9999	Military Sciences, Other
29.0101	Military Technologies
29.9999	Military Technologies, Other
48.0703	Millwork and Cabinet Making
47.0304	Mine Equipment Maintenance and Repair
15.0902	Mining (excluding coal) Technology
14.2101	Mining and Mineral Engineering
15.0999	Mining and Petroleum Technologies, Other
49.0204	Mining Equipment Operation
17.0599	Miscellaneous Allied Health Services, Other
46.0499	Miscellaneous Construction Trades and Property Maintenance, Other
47.0499	Miscellaneous Mechanics and Repairers, Other
40.0799	Miscellaneous Physical Sciences, Other
26.0699	Miscellaneous Specialized Areas, Life Sciences, Other
39.0301	Missionary Studies
26.0402	Molecular Biology
10.0102	Motion Picture Technology
47.0107	Motor Repair
32.0106	Motor Skills
30.9999	Multi/Interdisciplinary Studies, Other
25.0501	Museology
13.1312	Music Education
50.0902	Music History and Appreciation
50.0903	Music Performance
50.0904	Music Theory and Composition
17.0806	Music Therapy
50.0901	Music, General
50.0999	Music, Other
47.0404	Musical Instrument Repair
16.1001	Native American Languages
36.0106	Nature Appreciation
14.2201	Naval Architecture and Marine Engineering
28.0401	Naval Science (Navy, Marines)
18.1011	Neurological Surgery
18.1024	Neurology
26.0608	Neurosciences
14.2301	Nuclear Engineering
41.0201	Nuclear Materials Handling Technology
17.0208	Nuclear Medical Technology
18.1012	Nuclear Medicine
40.0806	Nuclear Physics

41.0202	Nuclear Power Plant Operation Technology
41.0203	Nuclear Power Plant Radiation Control Technology
41.0299	Nuclear Technologies, Other
01.0606	Nursery Operation and Management
18.1105	Nursing Administration
17.0602	Nursing Assisting
18.1101	Nursing, General
18.1199	Nursing, Other
17.0699	Nursing-Related Services, Other
13.1313	Nutritional Education
26.0609	Nutritional Sciences
18.1013	Obstetrics and Gynecology
15.0701	Occupational Safety and Health Technology
17.0807	Occupational Therapy
17.0809	Occupational Therapy Aide
17.0808	Occupational Therapy Assisting
14.2401	Ocean Engineering
41.0102	Oceanographic (Biological) Technology
41.0305	Oceanographic (Physical) Technology
40.0702	Oceanography
08.0807	Office Products and Equipment Marketing
07.0401	Office Supervision and Management
47.0305	Oil and Gas Drilling Equipment Operation and Maintenance
47.0405	Operation, Maintenance, and Repair of Audio-Visual Equipment
06.1302	Operations Research (Quantitative Methods)
17.0701	Ophthalmic Dispensing
17.0799	Ophthalmic Services, Other
18.1014	Ophthalmology
15.0606	Optical Technology
40.0807	Optics
17.0705	Optometric Technology
18.1201	Optometry
18.0405	Oral Pathology
18.0404	Oral/Maxial Facial Surgery
40.0504	Organic Chemistry
06.1501	Organizational Behavior
01.0603	Ornamental Horticulture
18.1015	Orthodontic Surgery
18.0406	Orthodontics
18.1016	Orthopedic
17.0812	Orthopedic Assisting
17.0811	Orthotics/Prosthetics
18.1301	Osteopathic Medicine
18.1017	Otorhinolaryngology/Otolaryngology
31.0201	Outdoor Recreation
05.0109	Pacific Area Studies
50.0708	Painting
46.0408	Painting and Decorating
40.0604	Paleontology
26.0610	Parasitology
31.0301	Parks and Recreation Management
31.0101	Parks and Recreation, General
31.9999	Parks and Recreation, Other
18.1018	Pathology
26.0704	Pathology, Human and Animal
30.0501	Peace Studies
18.1019	Pediatrics
18.0407	Pedodontics
35.0103	Perception of Others
18.0408	Periodontics
37.0101	Personal Awareness, General
37.0199	Personal Awareness, Other
37.0103	Personal Decisionmaking
12.0401	Personal Services, General
12.0499	Personal Services, Other
42.1001	Personality Psychology
07.0501	Personnel and Training Programs, General
07.0599	Personnel and Training Programs, Other
07.0503	Personnel Assisting
06.1601	Personnel Management
36.0107	Pet Care
01.0504	Pet Grooming
14.2501	Petroleum Engineering
15.0903	Petroleum Technology
08.1204	Petroleum Wholesaling
40.0505	Pharmaceutical Chemistry
26.0705	Pharmacology, Human and Animal
18.1401	Pharmacy
17.0507	Pharmacy Assisting
38.0101	Philosophy
38.9999	Philosophy and Religion, Other
48.0210	Photoengraving
48.0207	Photographic Laboratory and Darkroom
10.0103	Photographic Technology
50.0605	Photography
40.0506	Physical Chemistry
13.1314	Physical Education
18.1020	Physical Medicine and Rehabilitation
41.0399	Physical Science Technologies, Other
40.0101	Physical Sciences, General
40.9999	Physical Sciences, Other
17.0813	Physical Therapy
17.0814	Physical Therapy Aide
17.0815	Physical Therapy Assisting
17.0508	Physician Assisting
40.0801	Physics, General
40.0899	Physics, Other
42.1101	Physiological Psychology
26.0706	Physiology, Human and Animal
46.0502	Pipefitting and Steamfitting
40.0901	Planetary Science
26.0304	Plant Genetics
26.0305	Plant Pathology
26.0307	Plant Physiology
02.0408	Plant Protection (Pest Management)
02.0401	Plant Sciences, General

02.0499	Plant Sciences, Other
46.0409	Plastering
18.1021	Plastic Surgery
15.0607	Plastic Technology
48.0604	Plastics
46.0503	Plumbing
46.0501	Plumbing, Pipefitting, and Steamfitting, General
46.0599	Plumbing, Pipefitting,and Steamfitting, Other
17.0510	Podiatric Assisting
18.1501	Podiatry
45.1001	Political Science and Government
17.0409	Population and Family Planning
16.0904	Portuguese
02.0209	Poultry
17.0605	Practical Nursing
18.1701	Pre-Dentistry
13.1204	Pre-Elementary Education
22.0102	Pre-Law
18.1801	Pre-Medicine
18.1901	Pre-Pharmacy
18.2001	Pre-Veterinary
48.0401	Precision Food Production, General
48.0499	Precision Food Production, Other
48.0501	Precision Metal Work, General
48.0599	Precision Metal Work, Other
48.9999	Precision Production, Other
48.0699	Precision Work, Assorted Materials, Other
18.1022	Preventive Medicine
48.0208	Printing Press Operations
50.0710	Printmaking
06.0403	Product Management
18.0409	Prosthodontics
43.9999	Protective Services, Other
18.1106	Psychiatric/Mental Health
18.1023	Psychiatry
42.1201	Psycholinguistics
42.0101	Psychology, General
42.9999	Psychology, Other
42.1301	Psychometrics
42.1401	Psychopharmacology
44.0401	Public Administration
44.0101	Public Affairs, General
44.9999	Public Affairs, Other
18.1107	Public Health (Nursing)
18.2203	Public Health Education
18.2201	Public Health Laboratory Science
18.2204	Public Health Practice and Management
18.2299	Public Health, Other
44.0501	Public Policy Studies
09.0501	Public Relations
44.0601	Public Sanitation
44.0602	Public Transportation
44.0603	Public Utilities
44.0699	Public Works, Other
47.0504	Pumping Plants
08.0704	Purchasing
27.0401	Pure Mathematics
15.0799	Quality Control and Safety Technologies, Other
15.0702	Quality Control Technology
42.1501	Quantitative Psychology
10.0104	Radio and Television Production and Broadcasting Technology
09.0601	Radio/Television News Broadcasting
09.0701	Radio/Television, General
26.0611	Radiobiology
17.0209	Radiologic (Medical) Technology
41.0204	Radiologic (Physical) Technology
18.1025	Radiology
02.0409	Range Management
13.1315	Reading Education
06.1701	Real Estate
07.0707	Receptionist and Communication Systems Operation
06.0702	Recreational Enterprises Management
08.0904	Recreational Products Marketing
17.0816	Recreational Therapy
17.0822	Recreational Therapy Aide
17.0817	Recreational Therapy Assisting
08.1205	Recreational Vehicles and Accessories Marketing
17.0407	Rehabilitation Counseling
17.0899	Rehabilitation Services, Other
38.0201	Religion
39.0401	Religious Education
39.0501	Religious Music
13.1010	Remedial Education
03.0101	Renewable Natural Resources, General
03.9999	Renewable Natural Resources, Other
06.0703	Resort Management
03.0203	Resources Protection and Regulation
17.0818	Respiratory Therapy
17.0819	Respiratory Therapy Assisting
17.0210	Respiratory Therapy Technology
06.0704	Restaurant Management
08.0705	Retailing
15.0405	Robotics Technology
46.0410	Roofing
16.0402	Russian
05.0110	Russian and Slavic Studies
48.0302	Saddlemaking and Repair
49.0308	Sailors and Deckhands
08.0706	Sales
15.0504	Sanitation Technology
05.0111	Scandanavian Studies
16.0502	Scandinavian Languages
20.0408	School Food Service
13.0801	School Psychology
13.1316	Science Education
41.9999	Science Technologies, Other
50.0709	Sculpture

13.1205	Secondary Education
07.0606	Secretarial
07.0601	Secretarial and Related Programs, General
07.0699	Secretarial and Related Programs, Other
43.0109	Security Services
37.0104	Self-Perception
16.1199	Semitic Languages, Other
08.1206	Service Station Retailing
48.0506	Sheet Metal
07.0708	Shipping, Receiving, and Stock Clerk
48.0304	Shoe and Boot Repair
17.0410	Sign Language Interpreting
48.0209	Silk Screen Making and Printing
48.0403	Slaughtering and Butchering
16.0403	Slavic Languages (other than Russian)
47.0108	Small Appliance Repair
06.1801	Small Business Management and Ownership
47.0606	Small Engine Repair
13.0901	Social Foundations
42.1601	Social Psychology
35.0104	Social Role Engineering
13.1317	Social Science Education
45.0101	Social Sciences, General
45.9999	Social Sciences, Other
13.1318	Social Studies Education
44.0701	Social Work, General
44.0799	Social Work, Other
45.1101	Sociology
01.0206	Soil and Water Mechanical Practices
02.0501	Soil Sciences
15.0505	Solar Heating and Cooling Technology
40.0808	Solid State Physics
10.0105	Sound Recording Technology
05.0112	South Asian Studies
05.0113	Southeast Asian Studies
16.0905	Spanish
13.1001	Special Education, General
13.1099	Special Education, Other
08.0603	Specialty Foods Marketing
08.0808	Specialty Home Furnishings Marketing
13.1011	Specific Learning Disabilities
13.1012	Speech Correction
18.0102	Speech Pathology
23.1001	Speech, Debate, and Forensics
18.0103	Speech-Language Pathology/Audiology
17.0820	Speech/Hearing Therapy Aide
47.0407	Sporting Goods Equipment Repair
18.1030	Sports Medicine
36.0108	Sports/Physical Education
47.0501	Stationary Energy Sources, General
47.0599	Stationary Energy Sources, Other
27.0501	Statistics
07.0607	Stenographic
13.1101	Student Counseling and Personnel Services
08.0604	Supermarket Marketing
18.1026	Surgery
17.0211	Surgical Technology
14.2601	Surveying and Mapping Sciences
15.0203	Surveying and Mapping Technology
11.0501	Systems Analysis
14.2701	Systems Engineering
30.0601	Systems Science
06.1901	Taxation
13.1501	Teacher Assisting
13.1299	Teacher Education, General Programs, Other
13.1399	Teacher Education, Specific Subject Areas, Other
13.1401	Teaching English as a Second Language/Foreign Language
23.1101	Technical and Business Writing
13.1319	Technical Education
09.0801	Telecommunications
07.0205	Teller
14.2801	Textile Engineering
19.0904	Textile Science
15.0609	Textile Technology
19.0901	Textiles and Clothing, General
19.0999	Textiles and Clothing, Other
50.0405	Theater Design
39.0601	Theological Studies
39.9999	Theology, Other
17.0408	Therapeutic Child Care Work
18.1027	Thoracic Surgery
46.0103	Tile Setting
48.0507	Tool and Die Making
08.1104	Tourism
26.0612	Toxicology
13.1320	Trade and Industrial Education
06.2001	Trade and Industrial Supervision and Management
07.0709	Traffic, Rate, and Transportation Clerk
07.0502	Training Assisting
49.9999	Transportation and Material Moving, Other
08.1101	Transportation and Travel Marketing, General
08.1199	Transportation and Travel Marketing, Other
06.0705	Transportation Management
08.1102	Transportation Marketing
36.0109	Travel
08.1105	Travel Services Marketing
49.0205	Truck and Bus Driving
01.0607	Turf Management
48.0205	Typesetting, Make-up, and Composition
07.0701	Typing, General Office, and Related Programs, General
07.0799	Typing, General Office, and Related Programs, Other
12.0204	Umpiring
48.0303	Upholstering
04.0701	Urban Design
15.0204	Urban Planning Technology
45.1201	Urban Studies
18.1028	Urology
37.0105	Values, Attitudes, and Beliefs

49.0201	Vehicle and Equipment Operation, General
49.0299	Vehicle and Equipment Operation, Other
47.0601	Vehicle and Mobile Equipment Mechanics and Repairers, General
47.0699	Vehicle and Mobile Equipment Mechanics and Repairers, Other
08.1207	Vehicle Rental and Leasing
08.1201	Vehicles and Petroleum Marketing, General
08.1299	Vehicles and Petroleum Marketing, Other
47.0109	Vending and Recreational Machine Repair
17.0512	Veterinarian Assisting
18.2401	Veterinary Medicine
50.0606	Video
10.0106	Video Technology
50.0101	Visual and Performing Arts, General
50.9999	Visual and Performing Arts, Other
20.9999	Vocational Home Economics, Other
08.0905	Waiter/Waitress and Related Services
08.1106	Warehouse Services Marketing
47.0408	Watch Repair
15.0506	Water and Wastewater Technology
31.0401	Water Resources
49.0301	Water Transportation, General
49.0399	Water Transportation, Other
20.0308	Wedding/Specialty Consulting
48.0508	Welding
15.0610	Welding Technology
05.0114	Western European Studies
08.0605	Wholesale Food Marketing
08.0707	Wholesaling
03.0601	Wildlife Management
30.0701	Women's Studies
03.0509	Wood Science
48.0701	Woodworking, General
48.0799	Woodworking, Other
07.0801	Word Processing
26.0701	Zoology, General
26.0799	Zoology, Other

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